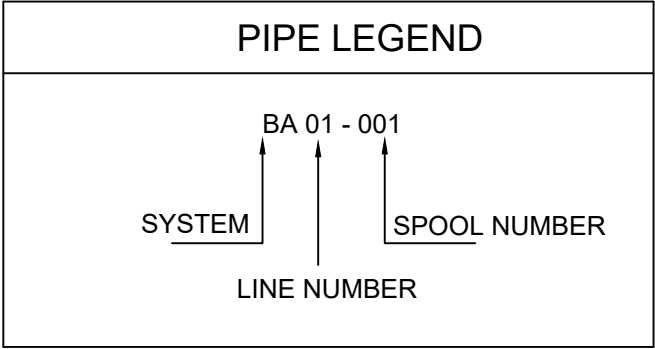



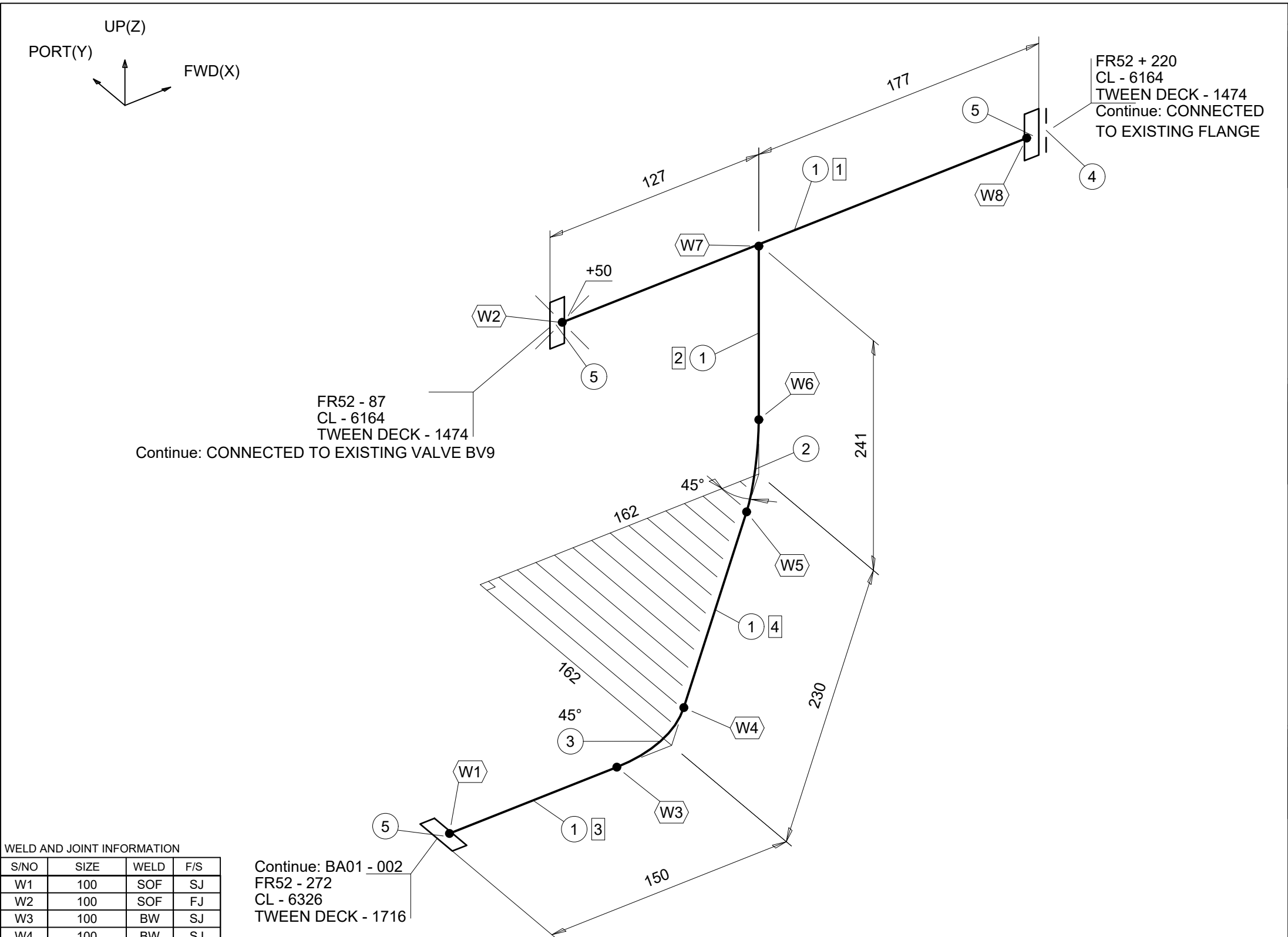
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SPOOL NAME	SHEET NO	DRAWN	DATE	REVISION	REMARKS
SPOOL INDEX SHEET	i		20-09-2024	A	
BA01-001	1		20-09-2024	A	
BA01-002	2		20-09-2024	A	
BA01-003	3		20-09-2024	A	
BA01-004	4		20-09-2024	A	
BA01-005	5		20-09-2024	A	
BA01-006	6		20-09-2024	A	
BA01-007	7		20-09-2024	A	
BA01-008	8		20-09-2024	A	
BA01-009	9		20-09-2024	A	
BA01-010	10		20-09-2024	A	
BA01-011	11		20-09-2024	A	
BA02-001	12		20-09-2024	A	
BA02-002	13		20-09-2024	A	
BA02-003	14		20-09-2024	A	
BA02-004	15		20-09-2024	A	
BA02-005	16		20-09-2024	A	
BA03-001	17		20-09-2024	A	
BA03-002	18		20-09-2024	A	
BA03-003	19		20-09-2024	A	
BA03-004	20		20-09-2024	A	
BA03-005	21		20-09-2024	A	
BA03-006	22		20-09-2024	A	
BA03-007	23		20-09-2024	A	
BA03-008	24		20-09-2024	A	
BA03-009	25		20-09-2024	A	
BA03-010	26		20-09-2024	A	
BA03-011	27		20-09-2024	A	
BA03-012	28		20-09-2024	A	
BA03-013	29		20-09-2024	A	
BA03-014	30		20-09-2024	A	
BA03-015	31		20-09-2024	A	
BA03-016	32		20-09-2024	A	
BA04-001	33		20-09-2024	A	
BA04-002	34		20-09-2024	A	
BA04-003	35		20-09-2024	A	
BA04-004	36		20-09-2024	A	
BA05-001	37		20-09-2024	A	
BA05-002	38		20-09-2024	A	
BA06-001	39		20-09-2024	A	
SAMPLING PORT	39A		20-09-2024	A	



REFERENCE DOCUMENTS:

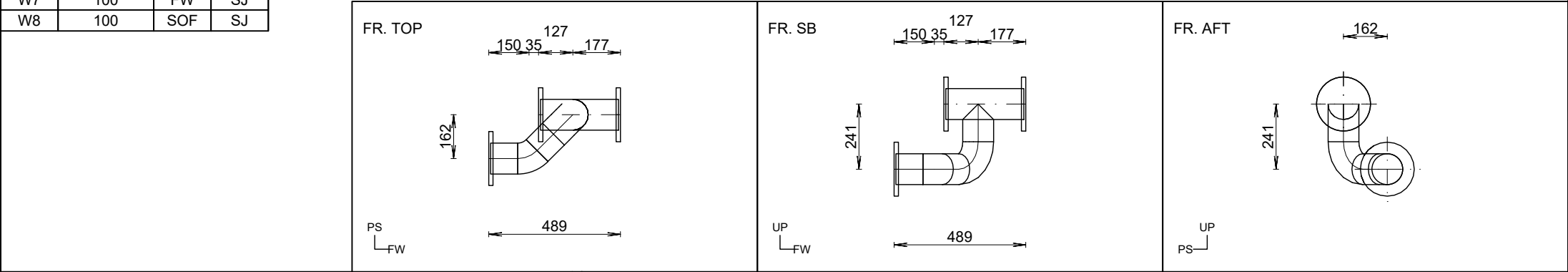
- 1.GSPL-P1482-PI-0001 BWTS Piping Schematic
- 2.GSPL-P1482-PI-0003 Compressed air system piping schematic R.A
- 3.GSPL-P1482-PI-0004 Sanitary & F.W service system piping schematic R.A
- 4.GSPL-P1482-PI-0201 Piping Arrangement Drawing for BWTS (1" & Above)







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




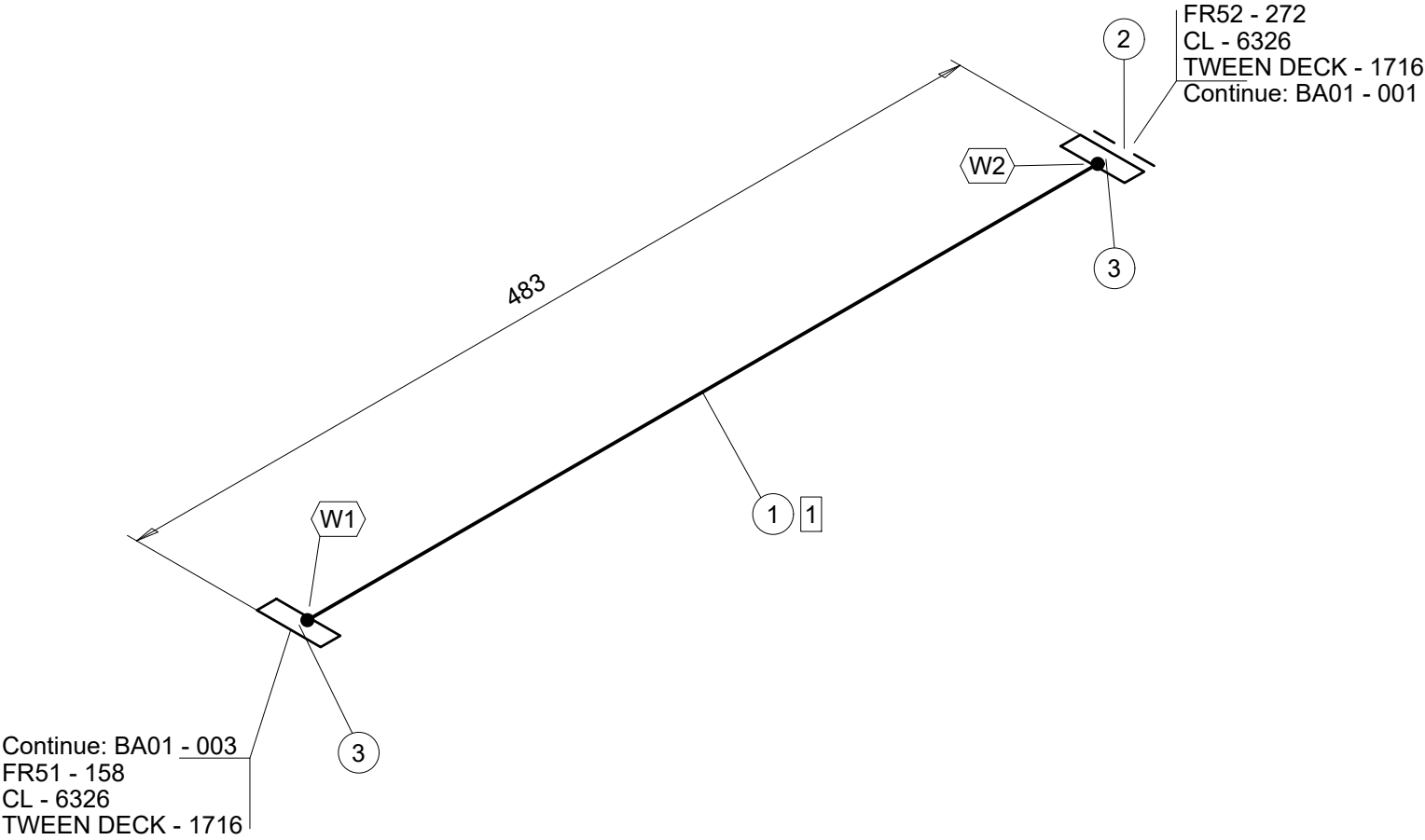
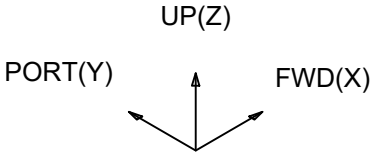
WELD AND JOINT INFORMATION

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



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 5K	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		0.67	Pipe Seamless, BW	100A Sch40	STPG370	16.00	
2	1		Elbow SR, BW 90 deg	100A Sch40	PG 370	2.69	
3	1		Elbow SR, BW 45 deg	100A Sch40	PG 370	2.69	
5	3		Flange SOFF	100A JIS5K	SF440	2.39	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
4	1	Gasket, JIS5K, Thk 3mm		100A	CNAF		
CUT INFORMATION							
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)	
1	Pipe Seamless, BW			100A Sch40	STPG370	340	
2	Pipe Seamless, BW			100A Sch40	STPG370	140	
3	Pipe Seamless, BW			100A Sch40	STPG370	101	
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							
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	01/39	BA01			A	



FABRICATION MATERIAL					
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL
1		0.47	Pipe Seamless, BW	100A Sch40	STPG370
3	2		Flange SOFF	100A JIS5K	SF440

ERECTION MATERIAL					
PART	QTY.	DESCRIPTION		SIZE	MATERIAL
2	1	Gasket, JIS5K, Thk 3mm		100A	CNAF

CUT INFORMATION				
CUT NO.	DESCRIPTION		SIZE	CUT LENGTH (mm)
1	Pipe Seamless, BW		100A Sch40	470

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

A	20/09/2024	ISSUED FOR CONSTRUCTION		SK	TT
REV.	DATE	DESCRIPTION		DRAWN BY	CHKD BY

Client: EMAS OFFSHORE LIMITED

Location: -

Project No: P1482

BWTS Maker Name: BIO-SEA

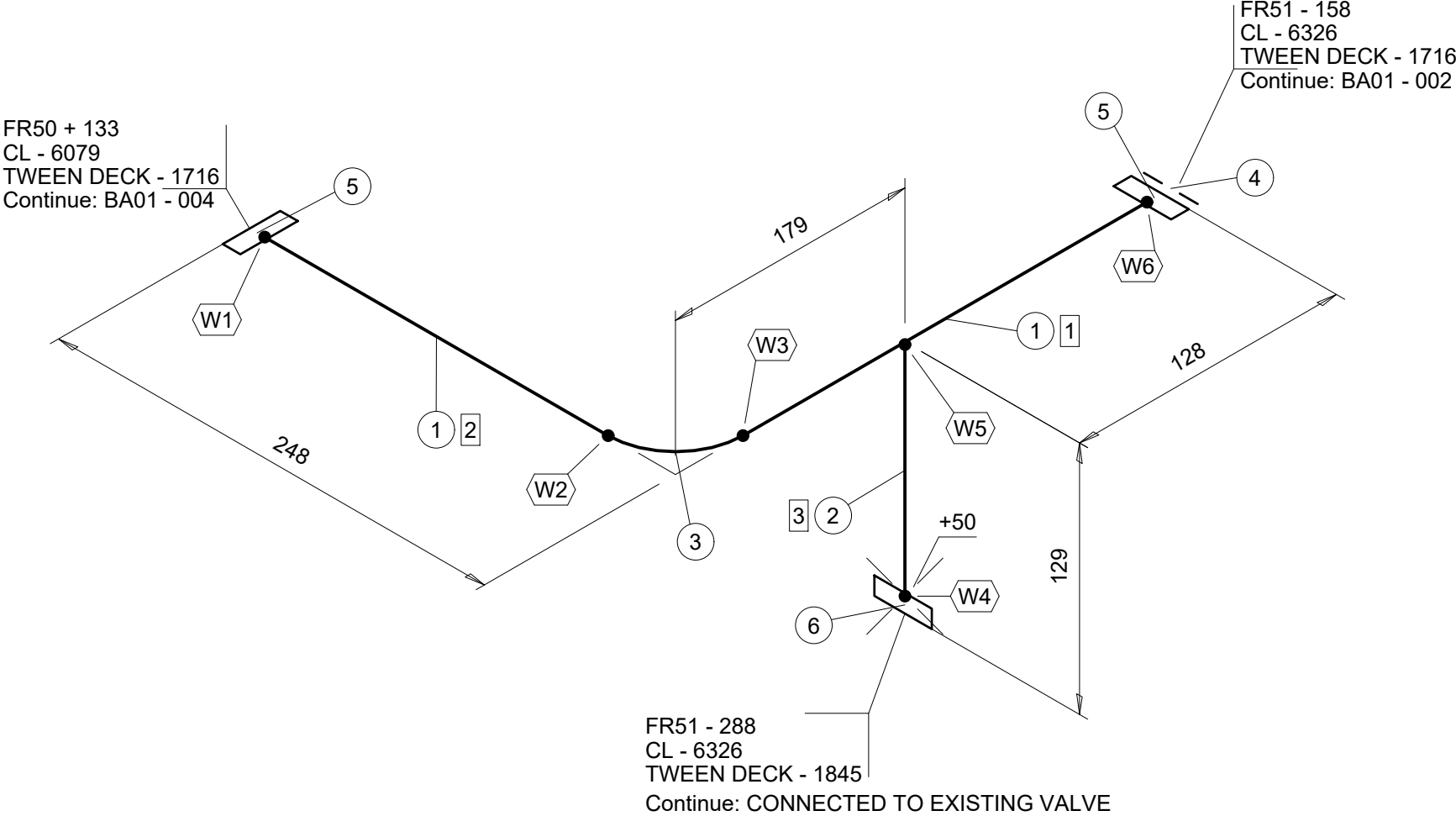
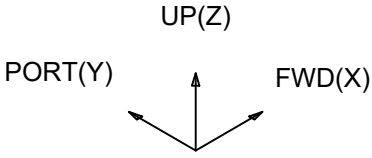
IMO No.: 9354947

Project Name: JP 88 STORK

Drawing title:

SPOOL-DRAWING FOR PIPE BA01

Scale	Format	Sheet	Drawing No:	Revision No.	
N.T.S	A3	02/39	BA01	A	



FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.34	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
5	2		Flange SOFF	100A JIS5K	SF440	2.39
6	1		Flange SOFF	80A JIS5K	SF440	1.99

ERECTION MATERIAL					
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
4	1	Gasket, JIS5K, Thk 3mm	100A	CNAF	

CUT INFORMATION				
CUT NO.	DESCRIPTION		SIZE	CUT LENGTH (mm)
1	Pipe Seamless, BW		100A Sch40	198
2	Pipe Seamless, BW		100A Sch40	139
3	Pipe Seamless, BW		80A Sch40	137

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

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 BA01					
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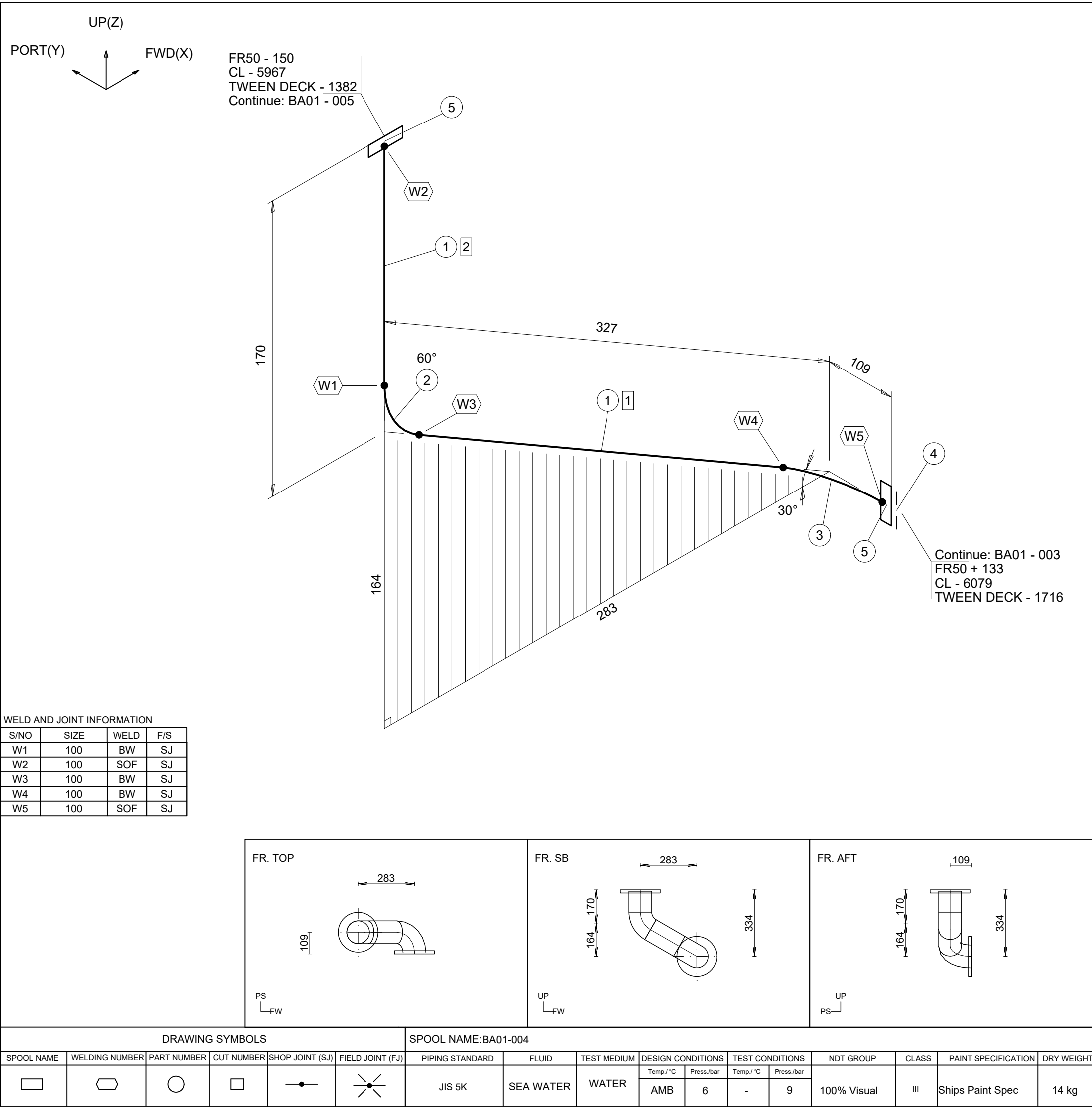
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N.T.S	A3	03/39	BA01		A

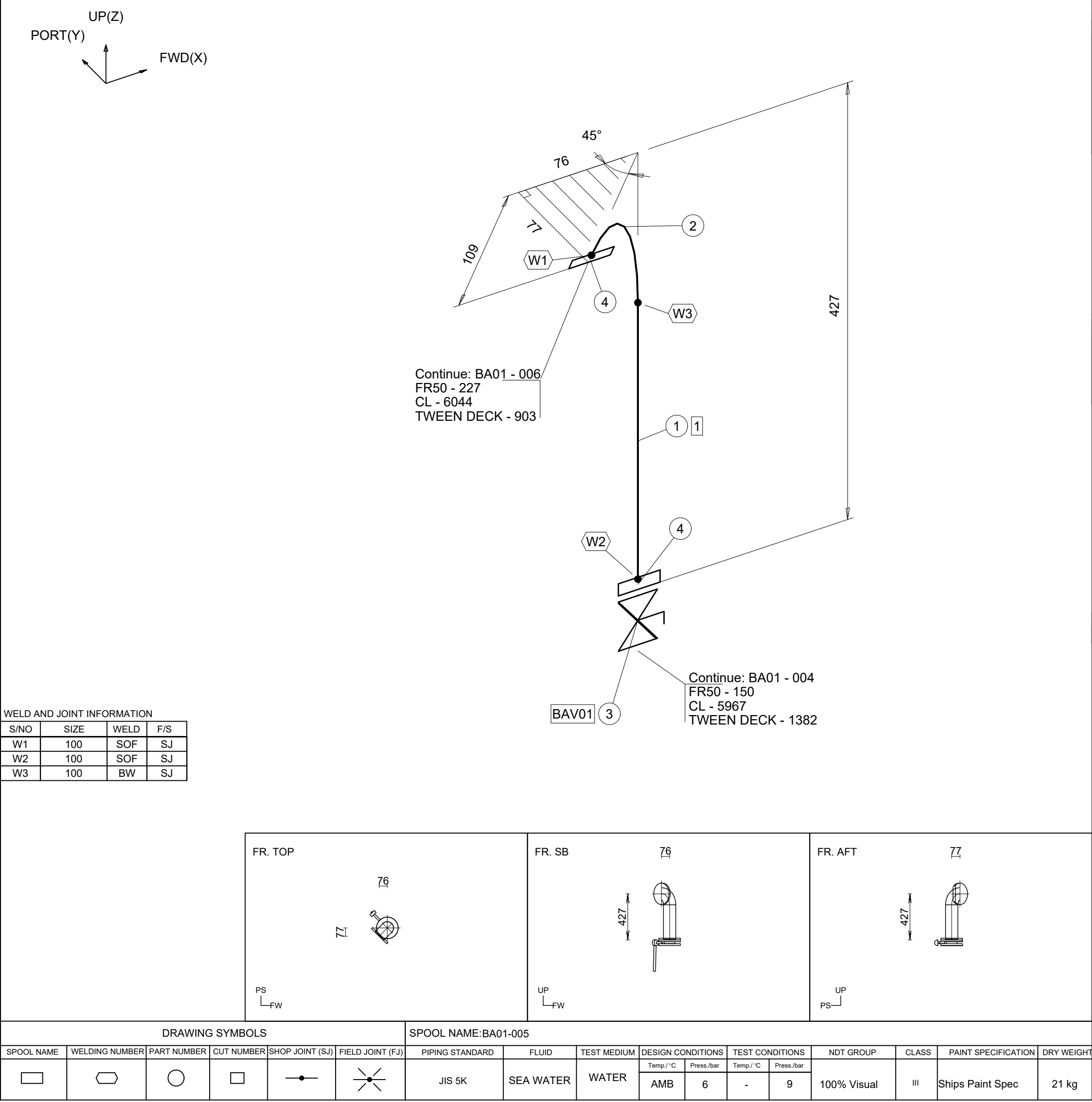
WELD AND JOINT INFORMATION			
S/NO	SIZE	WELD	F/S
W1	100	SOF	SJ
W2	100	BW	SJ
W3	100	BW	SJ
W4	80	SOF	FJ
W5	80	FW	SJ
W6	100	SOF	SJ


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

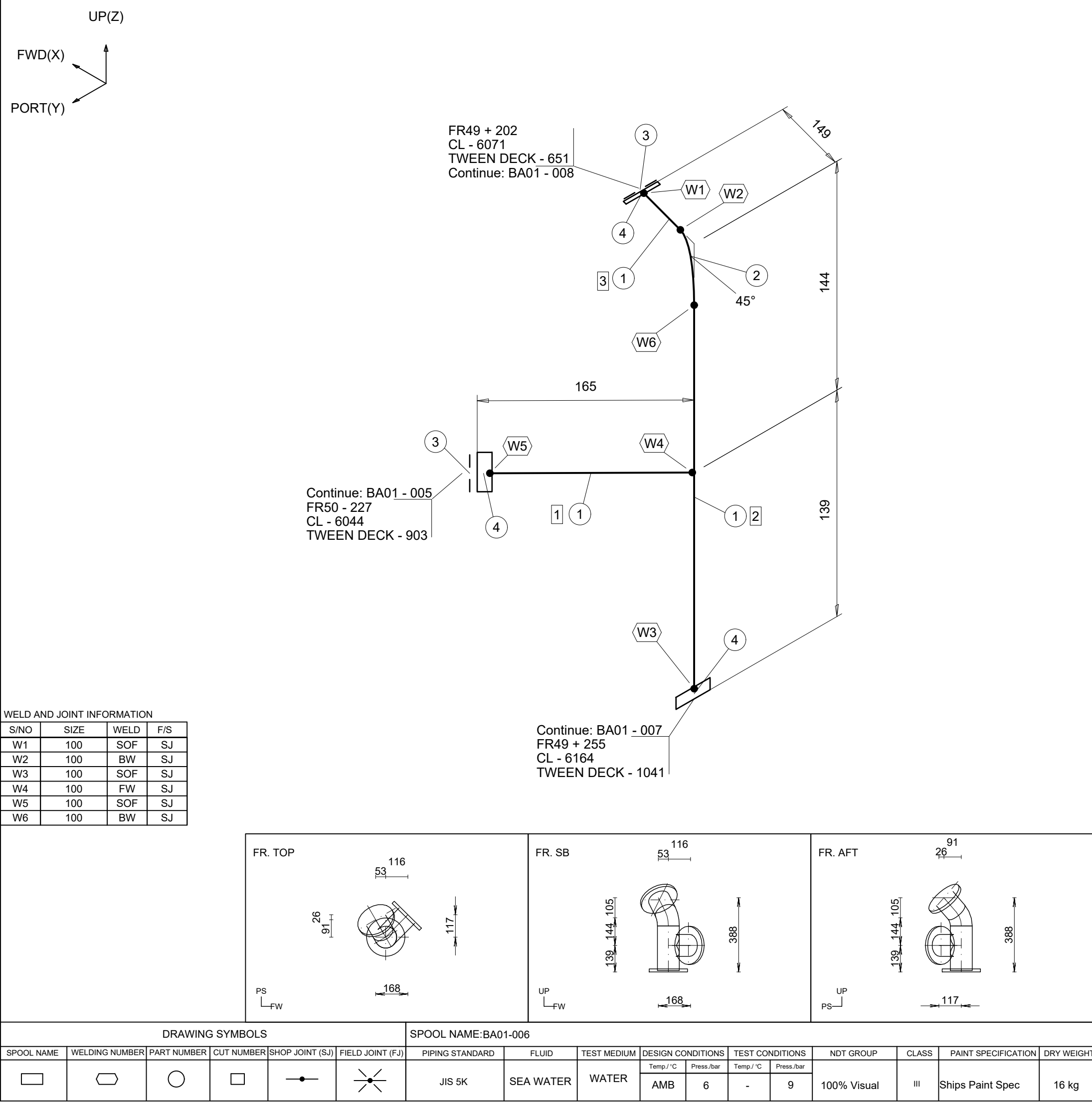
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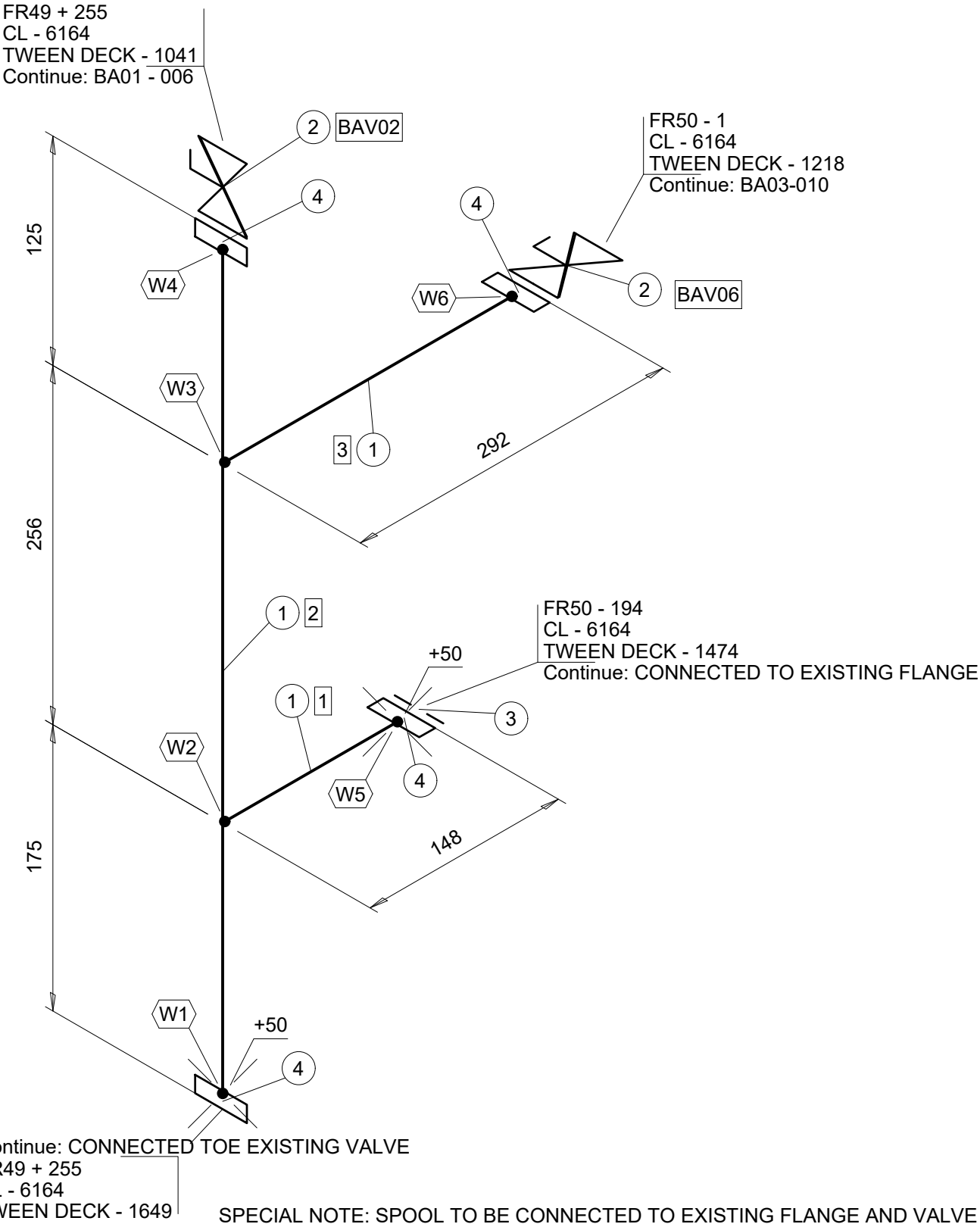
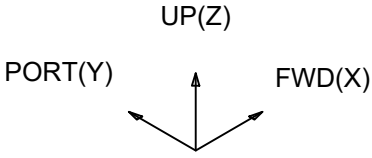
DRAWING SYMBOLS						SPOOL NAME:BA01-003										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 5K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °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		0.32	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2	1		Elbow SR, BW 90 deg	100A Sch40	PG 370	2.69
4	2		Flange SOFF	100A JIS5K	SF440	2.39
ERECTION MATERIAL						
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)
3	1	Butterfly Valve Manual		100A JIS5K	-	8.40
CUT INFORMATION						
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW			100A Sch40	STPG370	319
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						
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY
<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	05/39	BA01			A





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

FABRICATION MATERIAL

PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		1.06	Pipe Seamless, BW	100A Sch40	STPG370	16.00
4	4		Flange SOFF	100A JIS5K	SF440	2.39

ERECTION MATERIAL

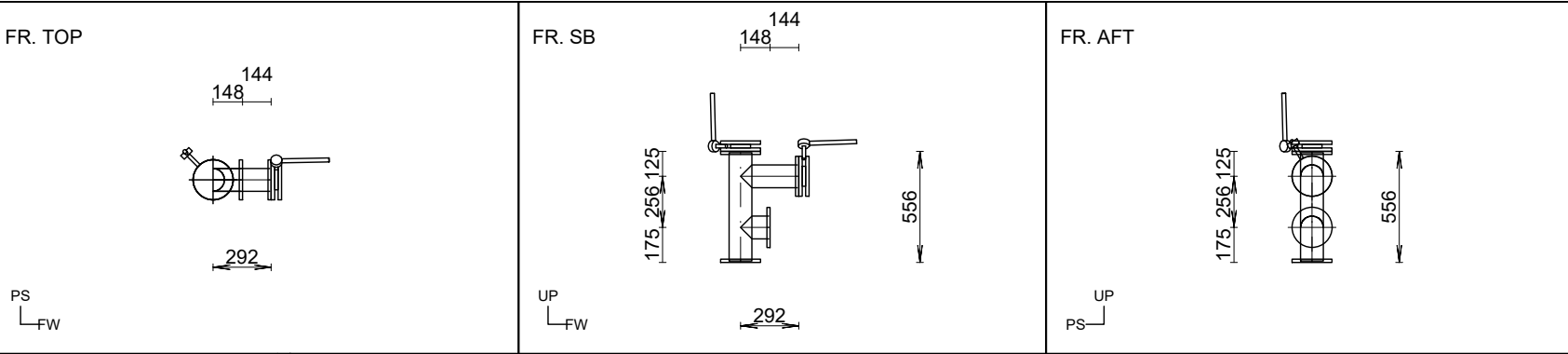
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
2	2	Butterfly Valve Manual	100A JIS5K	-	8.40
3	1	Gasket, JIS5K, Thk 3mm	100A	CNAF	

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:


- 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

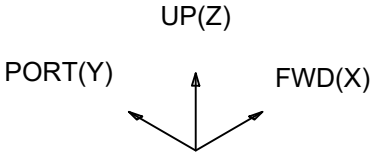


DRAWING SYMBOLS

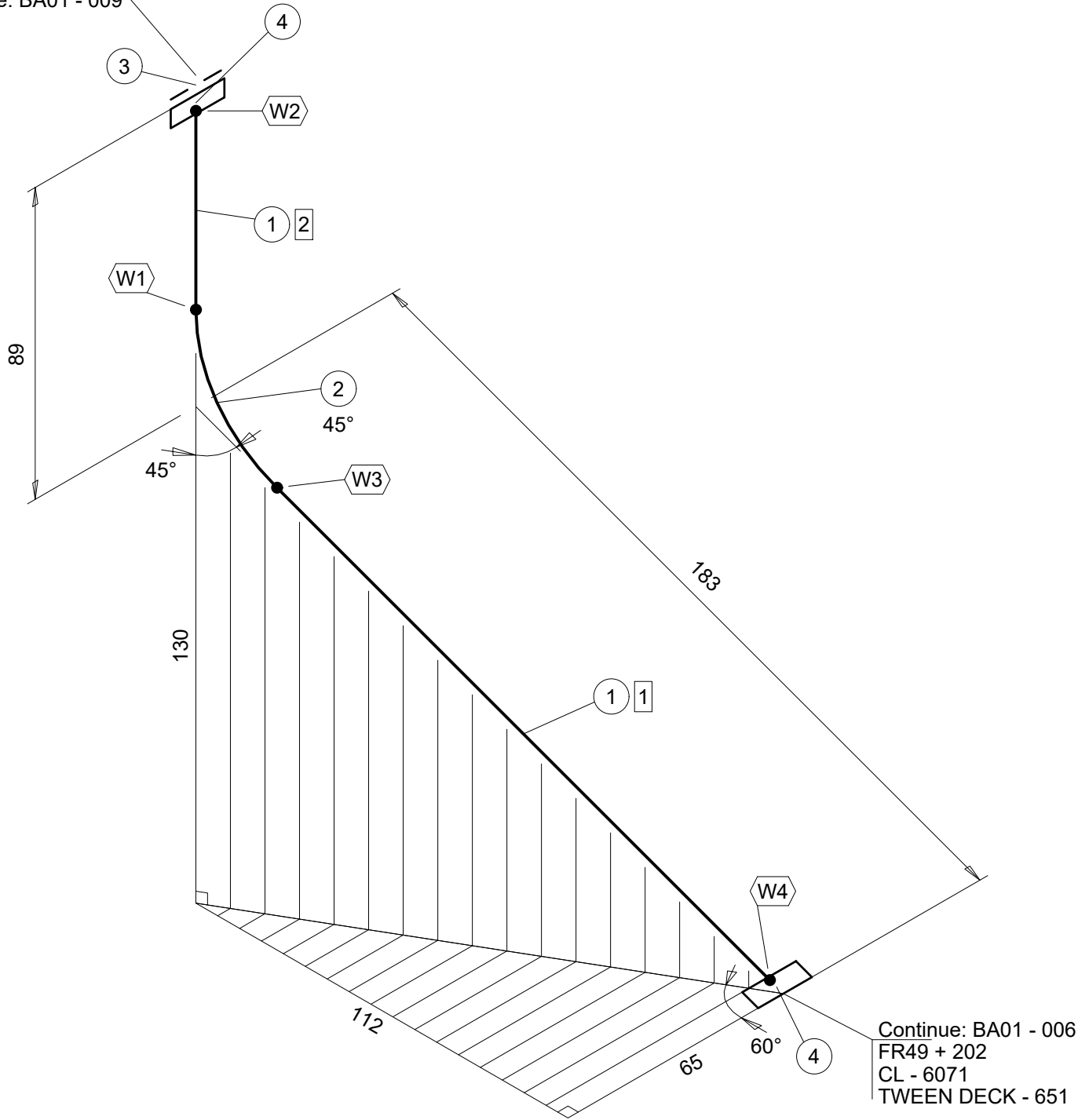
SPOOL NAME:BA01-007

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 5K	SEA WATER	WATER	Temp./°C	Press./bar	Temp./°C	Press./bar	100% Visual	III	Ships Paint Spec	40 kg
									AMB	6	-	9				

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></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	07/39	BA01		A

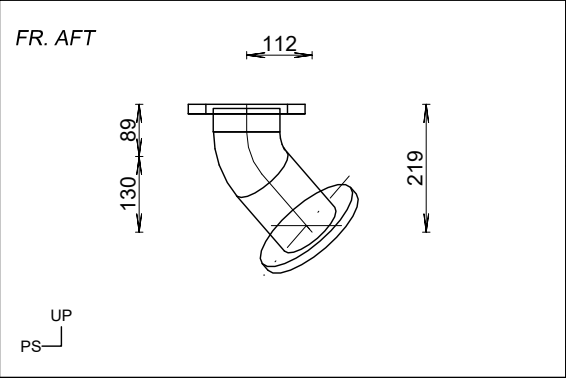
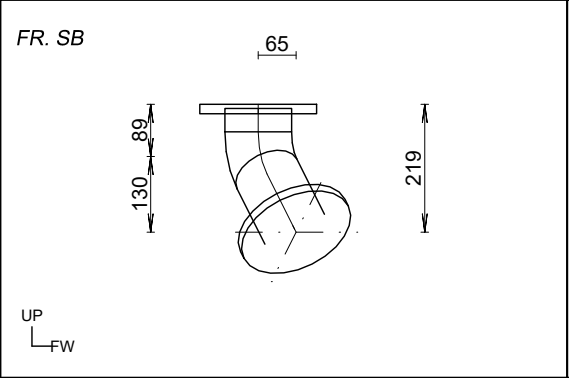
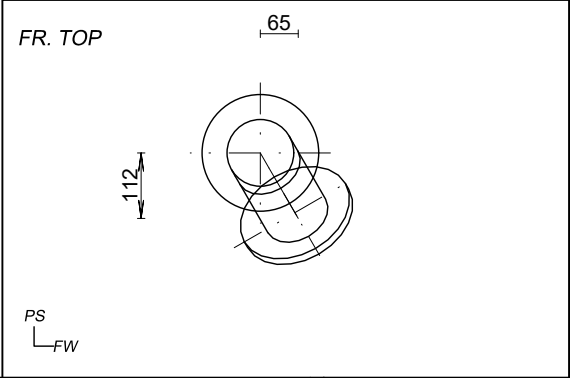








FR49 + 137
CL - 5959
TWEEN DECK - 430
Continue: BA01 - 009




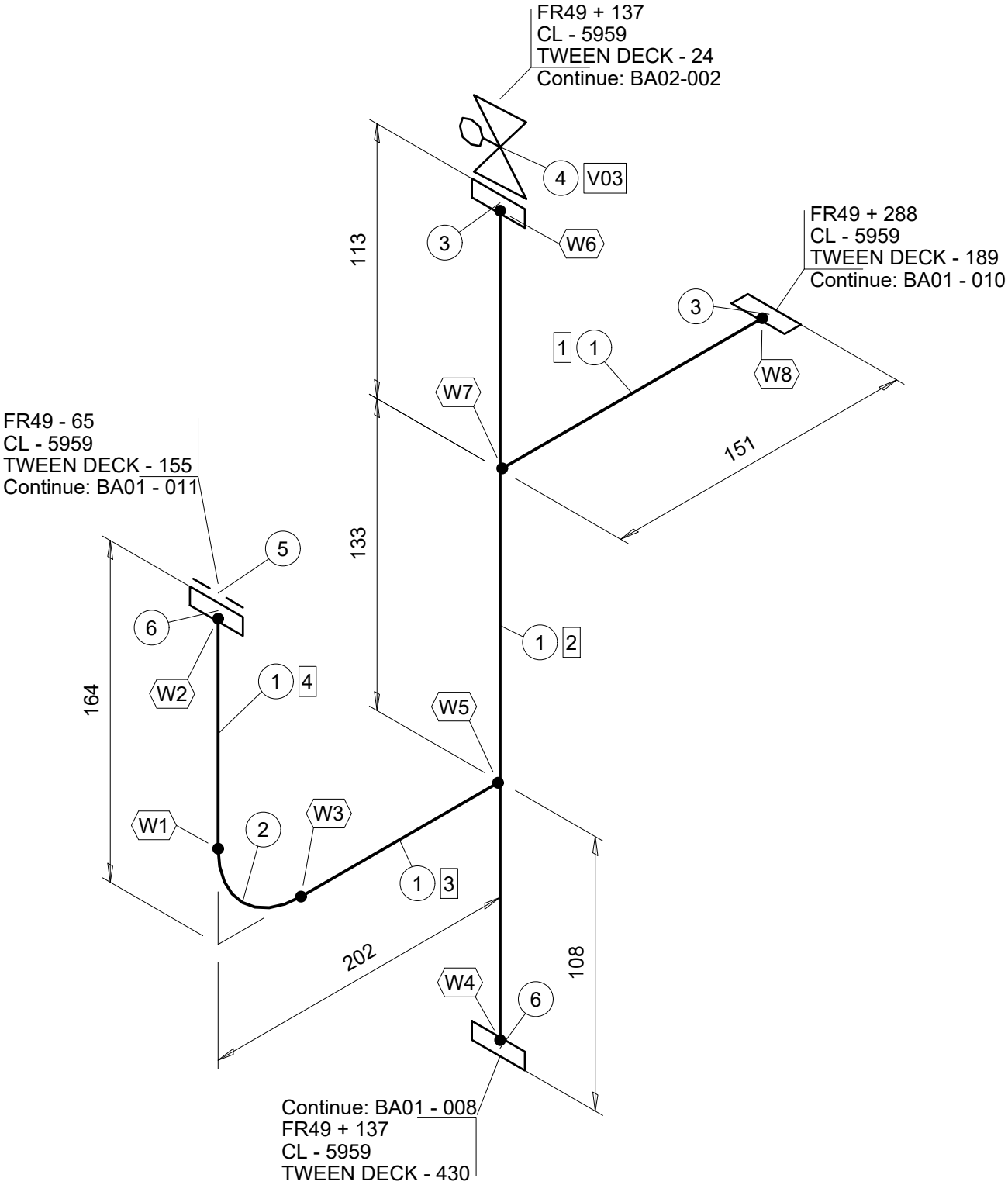
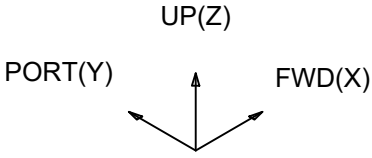
WELD AND JOINT INFORMATION

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



DRAWING SYMBOLS						SPOOL NAME:BA01-008										
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 5K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	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		0.17	Pipe Seamless, BW	100A Sch40	STPG370	16.00	
2	1		Elbow SR, BW 45 deg	100A Sch40	PG 370	2.69	
4	2		Flange SOFF	100A JIS5K	SF440	2.39	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
3	1	Gasket, JIS5K, Thk 3mm		100A	CNAF		
CUT INFORMATION							
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)	
1	Pipe Seamless, BW			100A Sch40	STPG370	135	
2	Pipe Seamless, BW			100A Sch40	STPG370	41	
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							
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY	APPRD
<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	08/39	BA01			A	




FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.63	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2	1		Elbow SR, BW 90 deg	100A Sch40	PG 370	2.69
3	2		Flange SOFF	DN100 PN10	Carbon Steel	4.03
6	2		Flange SOFF	100A JIS5K	SF440	2.39

ERECTION MATERIAL					
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
4	1	Butterfly Valve Remote	DN100 PN10	-	8.10
5	1	Gasket, JIS5K, Thk 3mm	100A	CNAF	

CUT INFORMATION				
CUT NO.	DESCRIPTION	SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW	100A Sch40	STPG370	140
2	Pipe Seamless, BW	100A Sch40	STPG370	335
3	Pipe Seamless, BW	100A Sch40	STPG370	101
4	Pipe Seamless, BW	100A Sch40	STPG370	56

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

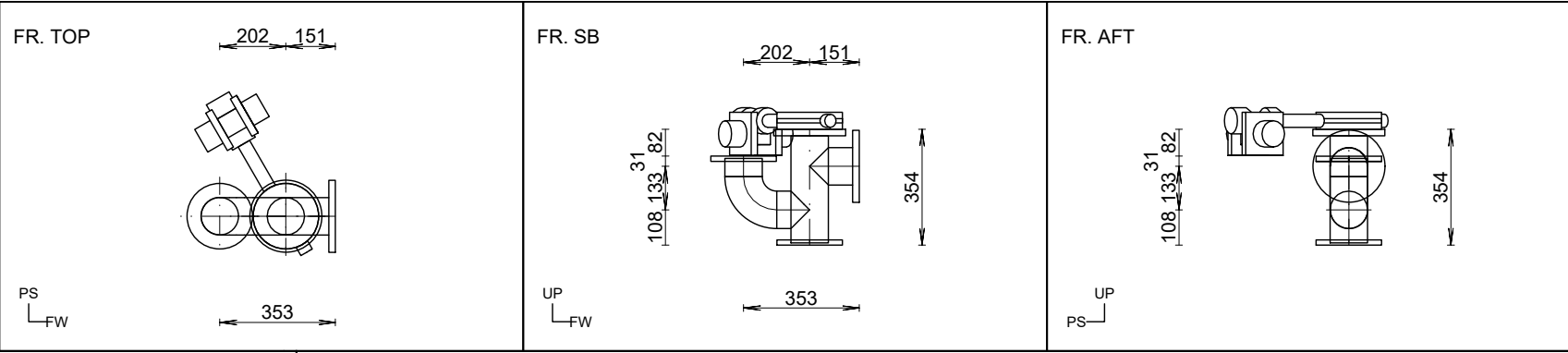
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





<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		

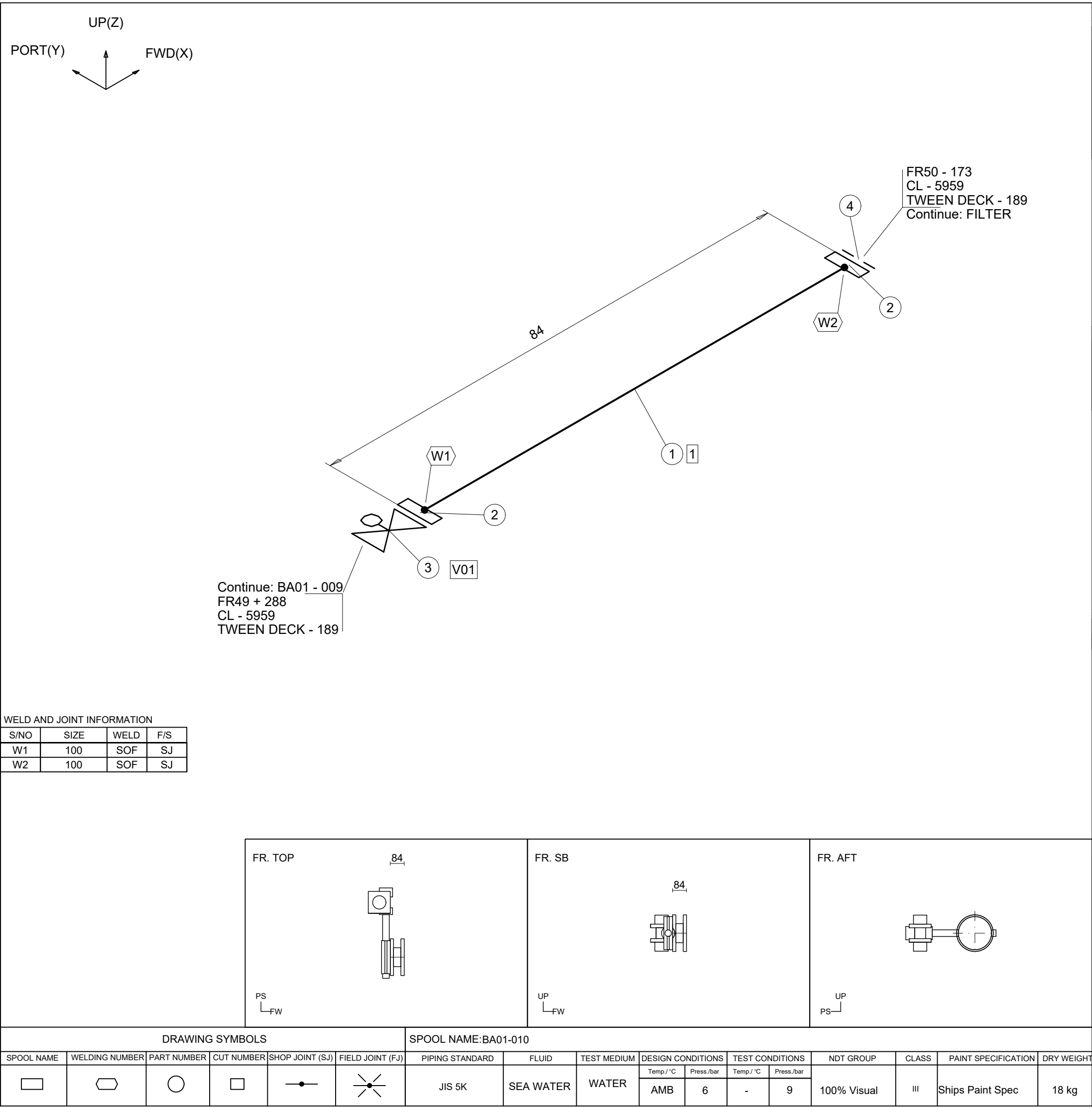
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Scale	Format	Sheet	Drawing No:	Revision No.	
N.T.S	A3	09/39	BA01	A	

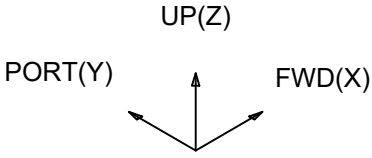
WELD AND JOINT INFORMATION			
S/NO	SIZE	WELD	F/S
W1	100	BW	SJ
W2	100	SOF	SJ
W3	100	BW	SJ
W4	100	SOF	SJ
W5	100	FW	SJ
W6	100	SOF	SJ
W7	100	FW	SJ
W8	100	SOF	SJ



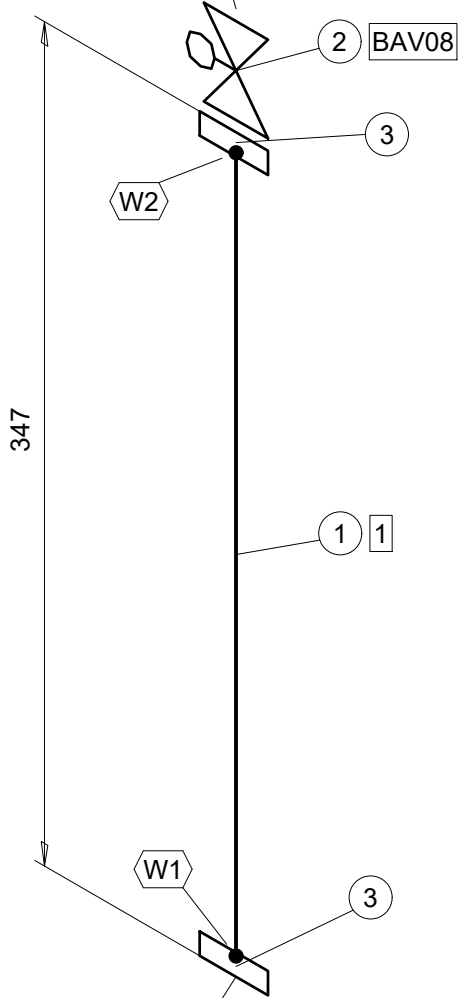
DRAWING SYMBOLS						SPOOL NAME:BA01-009										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 5K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	32 kg
									AMB	6	-	9				



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							
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	10/39	BA01			A	



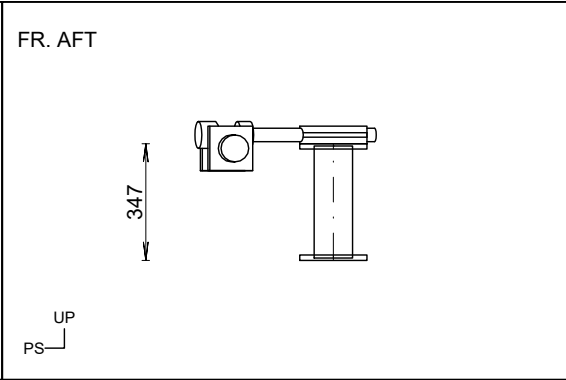
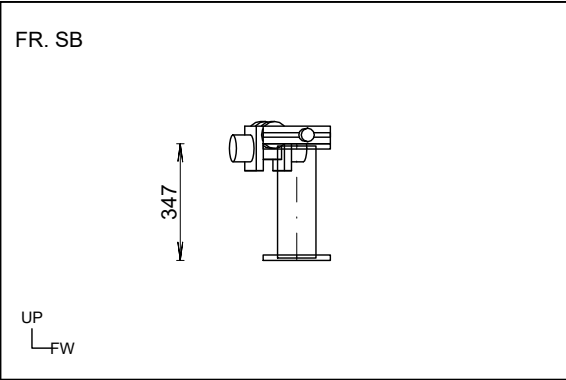
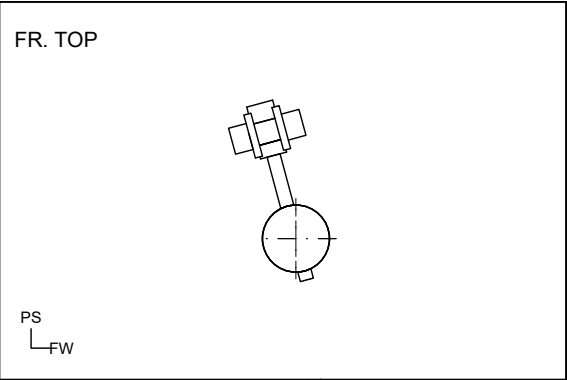
FR49 - 65
CL - 5959
TWEEN DECK + 244
Continue: BA03-004










Continue: BA01 - 009
FR49 - 65
CL - 5959
TWEEN DECK - 155

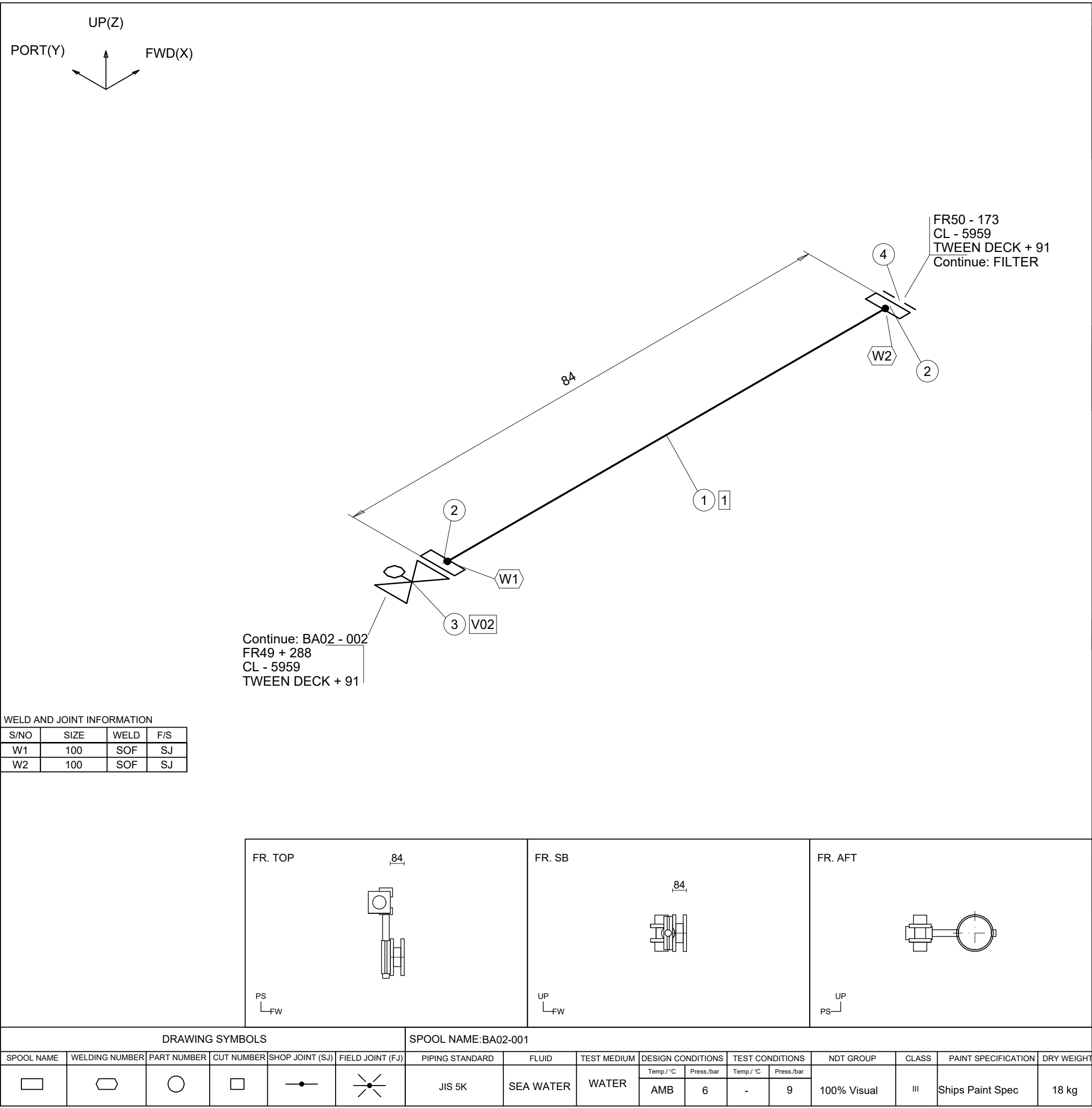
WELD AND JOINT INFORMATION


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

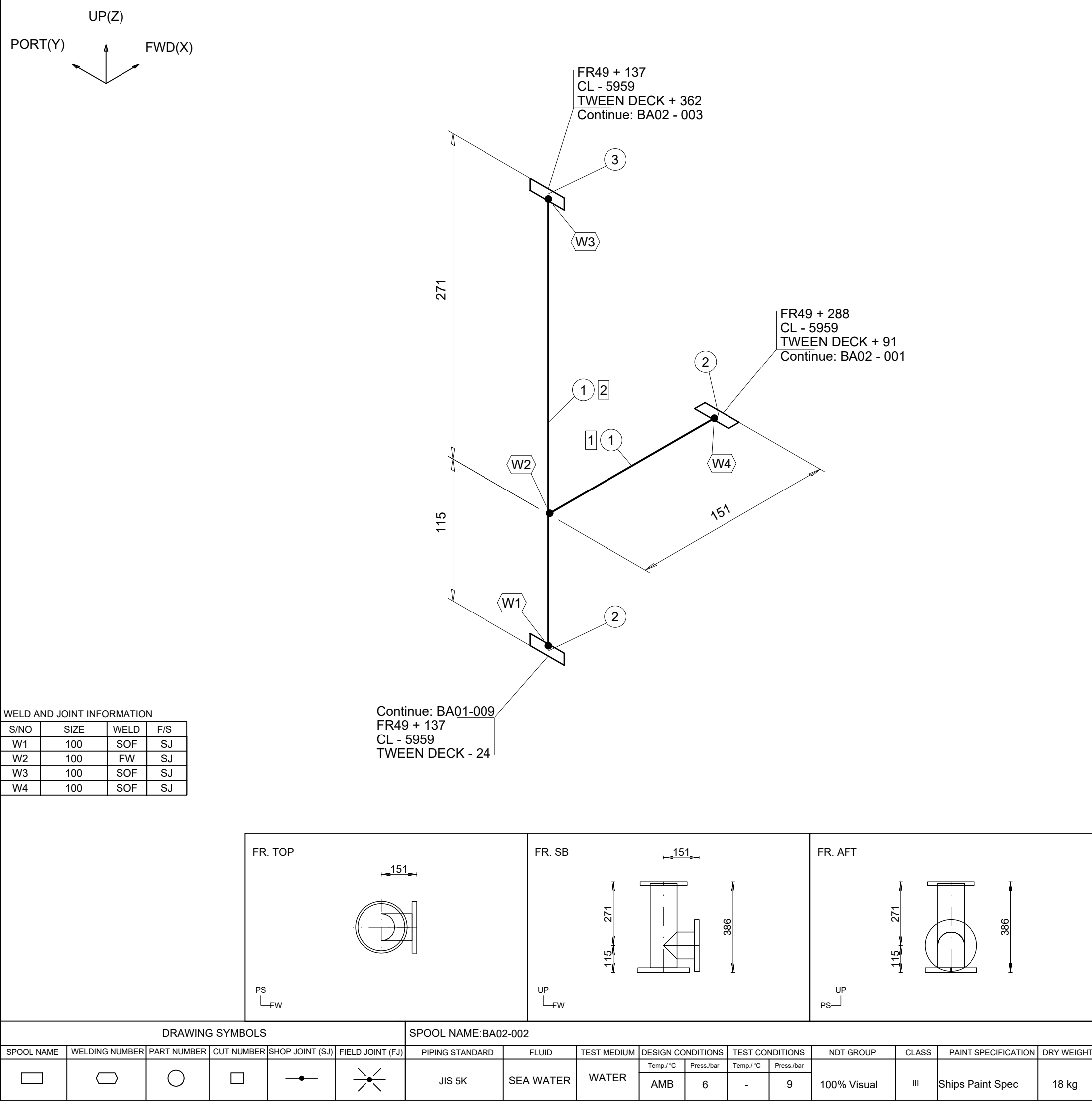


DRAWING SYMBOLS						SPOOL NAME:BA01-011										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 5K	SEA WATER	WATER	Temp./°C	Press./bar	Temp./°C	Press./bar	100% Visual	III	Ships Paint Spec	19 kg
									AMB	6	-	9				

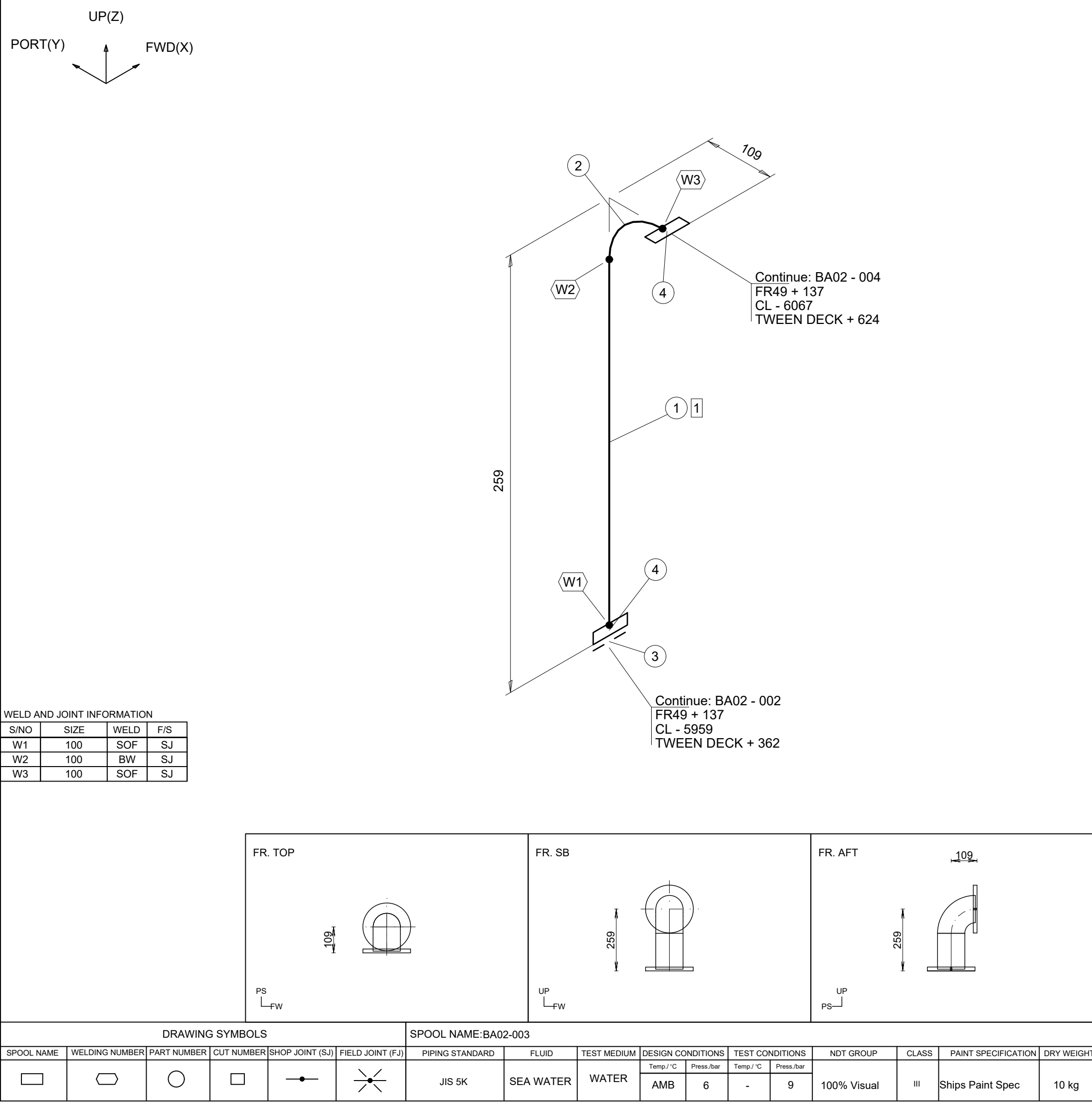
FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		0.33	Pipe Seamless, BW	100A Sch40	STPG370	16.00	
3	2		Flange SOFF	100A JIS5K	SF440	2.39	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
2	1	Butterfly Valve Remote		100A JIS 5K	-	8.10	
CUT INFORMATION							
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)	
1	Pipe Seamless, BW			100A Sch40	STPG370	334	
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							
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	11/39	BA01			A	




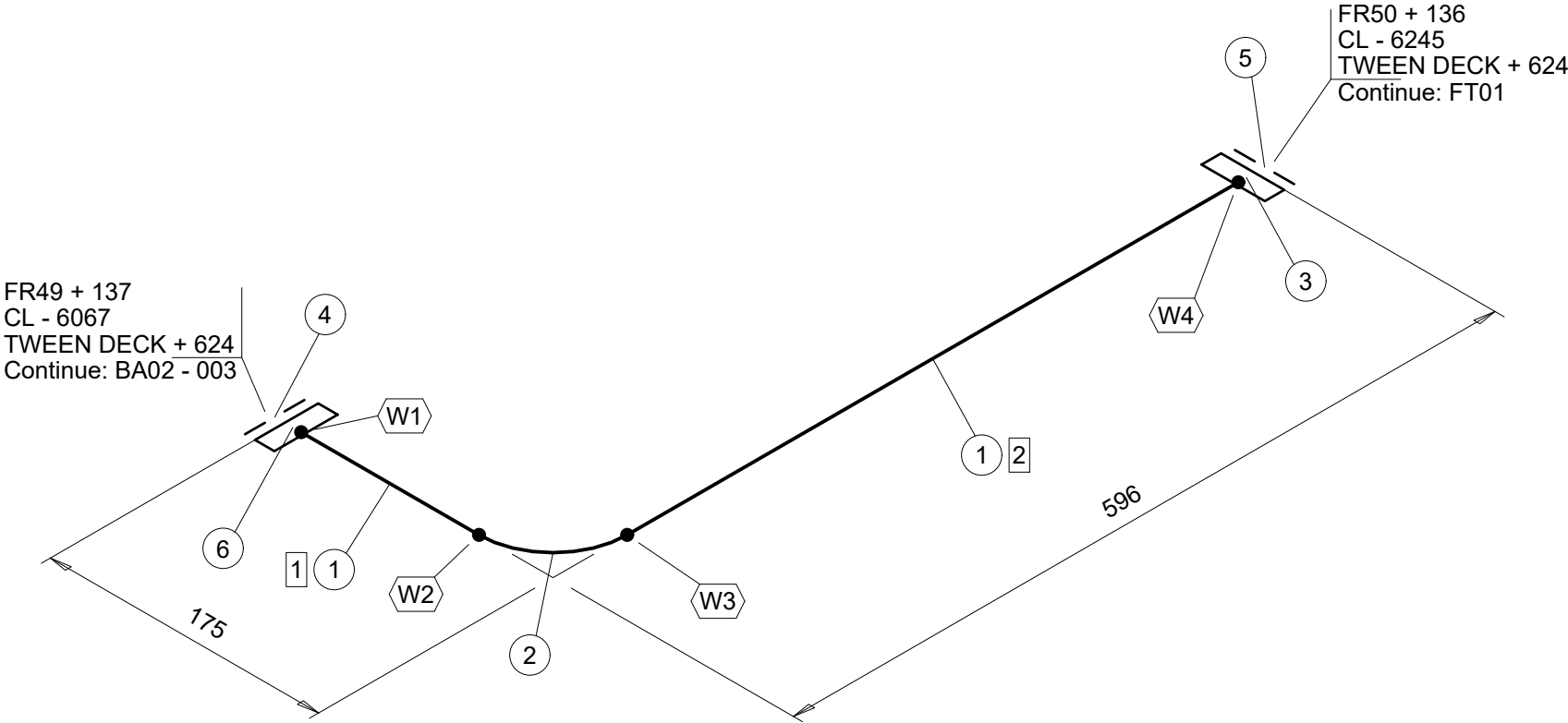
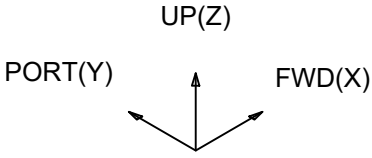
FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		0.06	Pipe Seamless, BW	100A Sch40	STPG370	16.00	
2	2		Flange SOFF	DN100 PN10	Carbon Steel	4.03	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
3	1	Butterfly Valve Remote		DN100 PN10	-	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							
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	12/39	BA02			A	



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		Flange SOFF	DN100 PN10	Carbon Steel	4.03
3	1		Flange SOFF	100A JIS5K	SF440	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	140
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						
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY
<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 BA02						
Scale	Format	Sheet	Drawing No:			Revision No.
N.T.S	A3	13/39	BA02			A



FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		0.15	Pipe Seamless, BW	100A Sch40	STPG370	16.00	
2	1		Elbow SR, BW 90 deg	100A Sch40	PG 370	2.69	
4	2		Flange SOFF	100A JIS5K	SF440	2.39	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
3	1	Gasket, JIS5K, Thk 3mm		100A	CNAF		
CUT INFORMATION							
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)	
1	Pipe Seamless, BW			100A 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							
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	14/39	BA02			A	



FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.55	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	DN100 PN10	Carbon Steel	4.03
6	1		Flange SOFF	100A JIS5K	SF440	2.39

ERECTION MATERIAL					
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
4	1	Gasket, JIS5K, Thk 3mm	100A	CNAF	
5	1	Gasket, PN10, Thk 3mm	DN100	CNAF	

CUT INFORMATION				
CUT NO.	DESCRIPTION		SIZE	CUT LENGTH (mm)
1	Pipe Seamless, BW		100A Sch40	67
2	Pipe Seamless, BW		100A Sch40	483

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

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 BA02

Scale	Format	Sheet	Drawing No:	Revision No.
N.T.S	A3	15/39	BA02	A







WELD AND JOINT INFORMATION

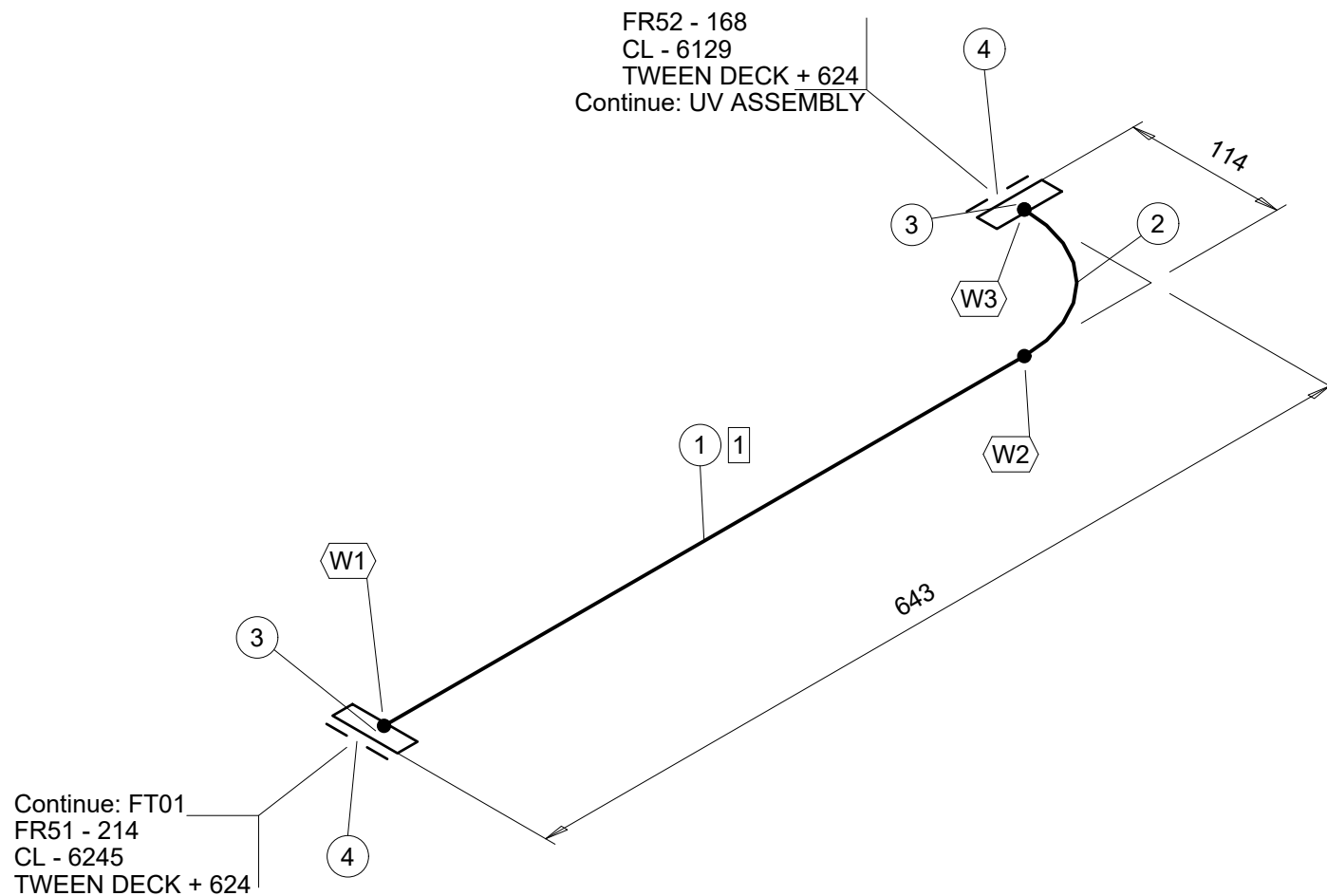
S/NO	SIZE	WELD	F/S
W1	100	SOF	SJ
W2	100	BW	SJ
W3	100	BW	SJ
W4	100	SOF	SJ

FR. TOP


FR. SB

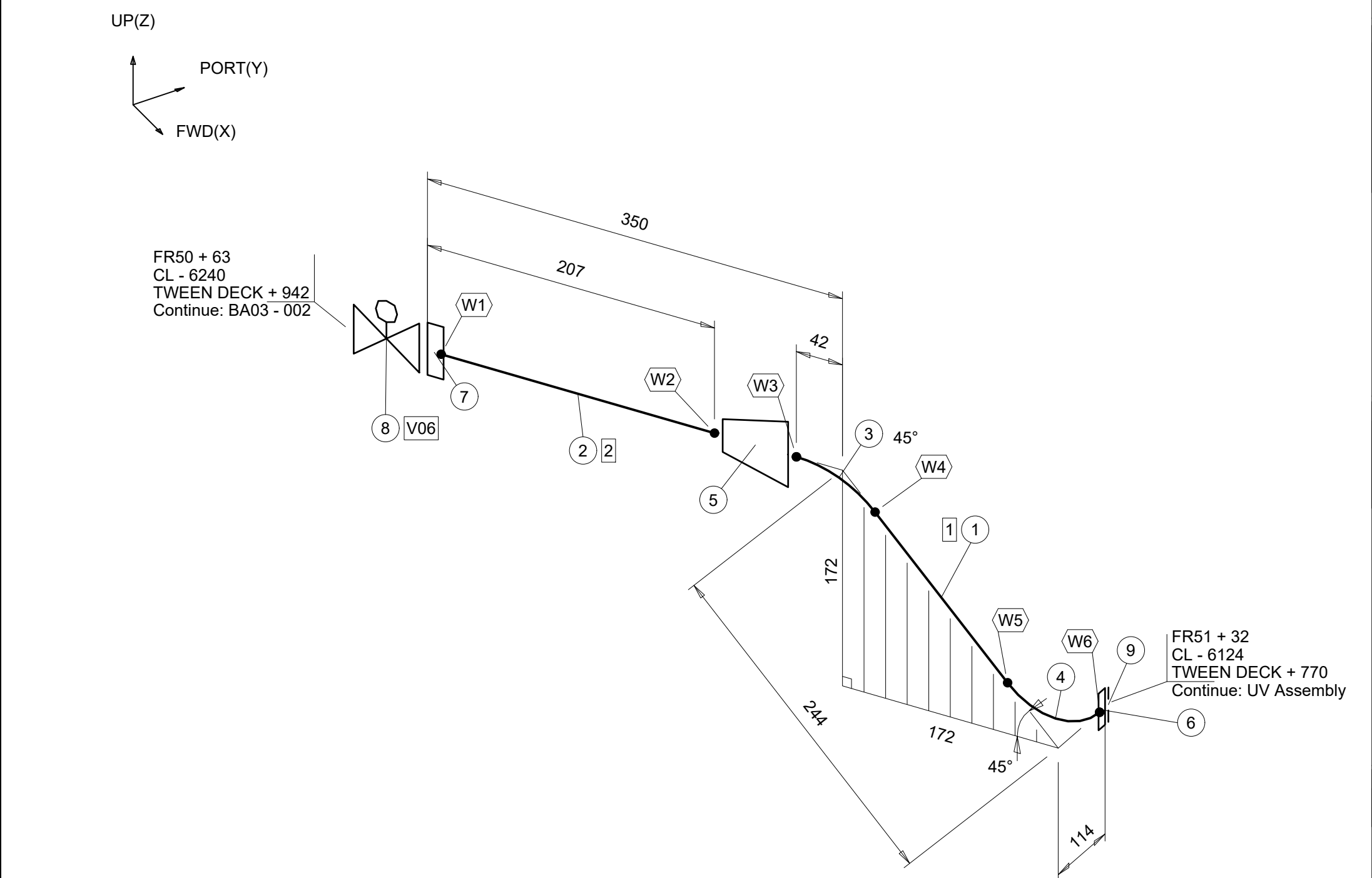
FR. AFT

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 5K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	18 kg
									AMB	6	-	9				



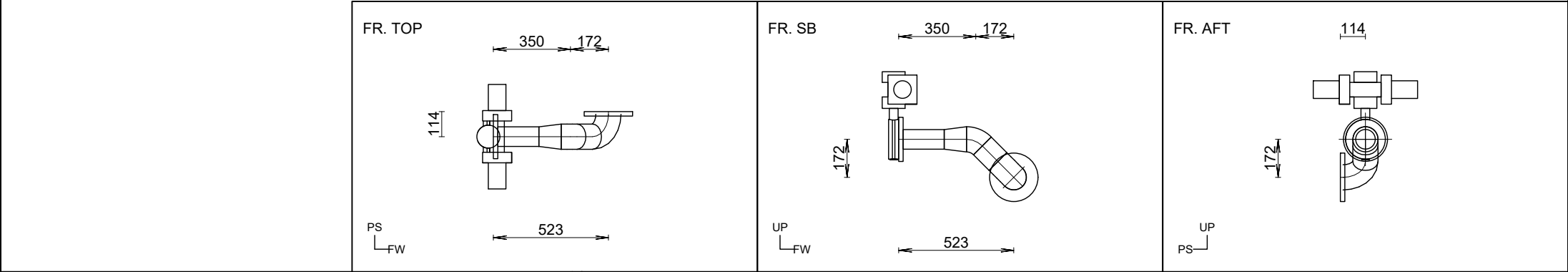
FR. TOP	FR. SB	FR. AFT
<p>PS</p> <p>FW</p>	<p>UP</p> <p>FW</p>	<p>UP</p> <p>PS</p>







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	2		Flange SOFF	DN100 PN10	Carbon Steel	4.03
ERECTION MATERIAL						
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)
4	2	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						
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	16/39	BA02			A



WELD AND JOINT INFORMATION

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



DRAWING SYMBOLS						SPOOL NAME:BA03-001										
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 5K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	46 kg
									AMB	6	-	9				

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	

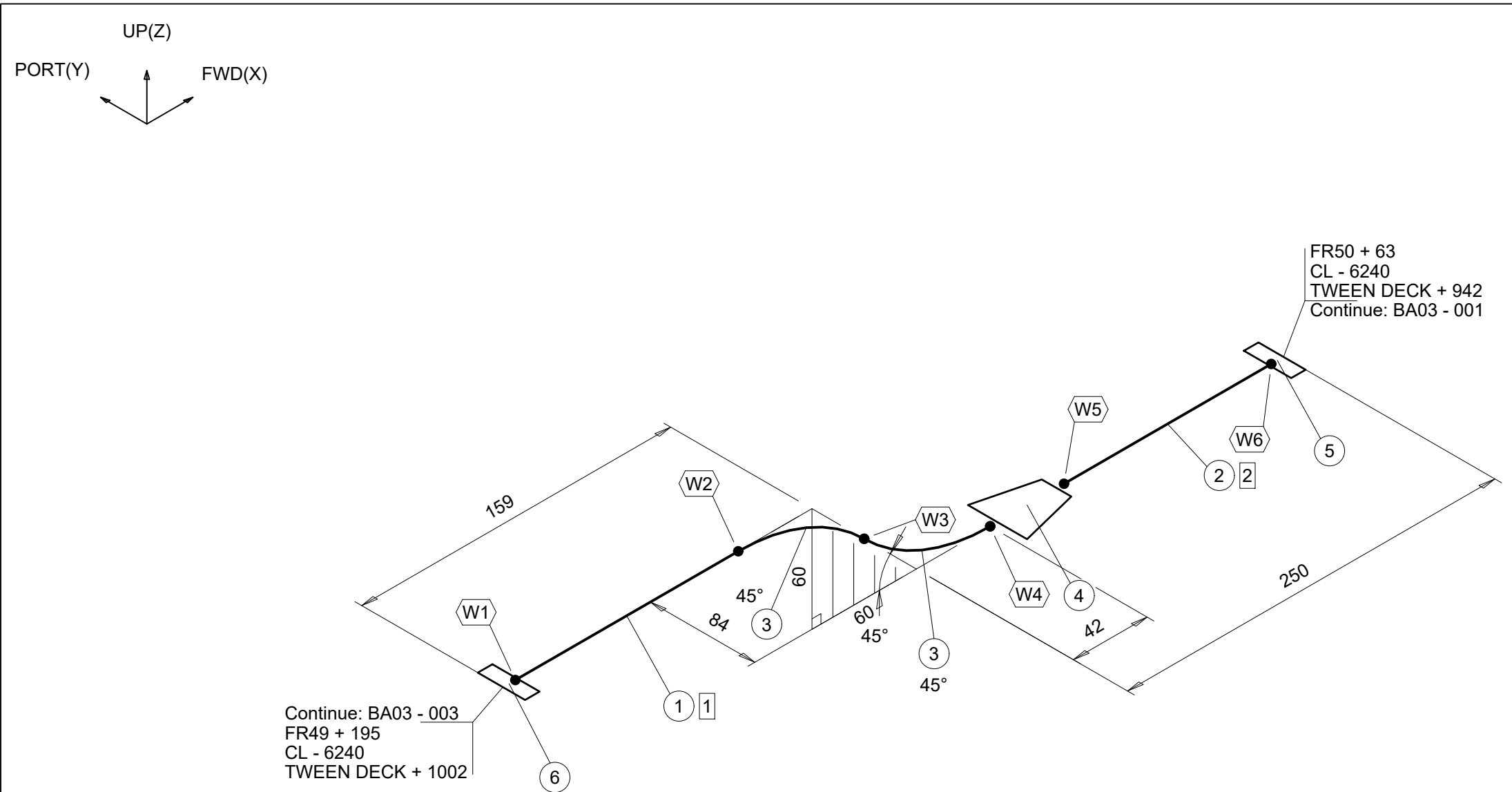
CUT INFORMATION

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:

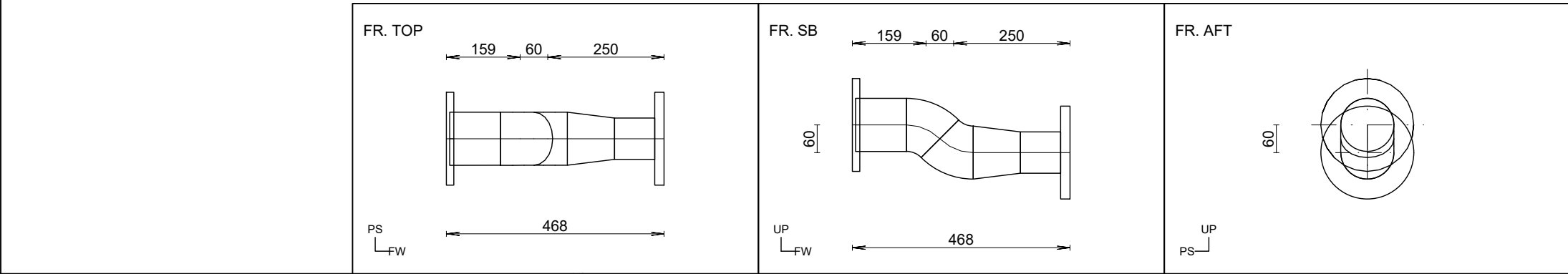
- ALL DIMENSIONS ARE IN MILLIMETERS
- CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS
- Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.
- MATERIAL : CARBON STEEL HOT DIP GALVANIZED







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	17/39	BA03		A




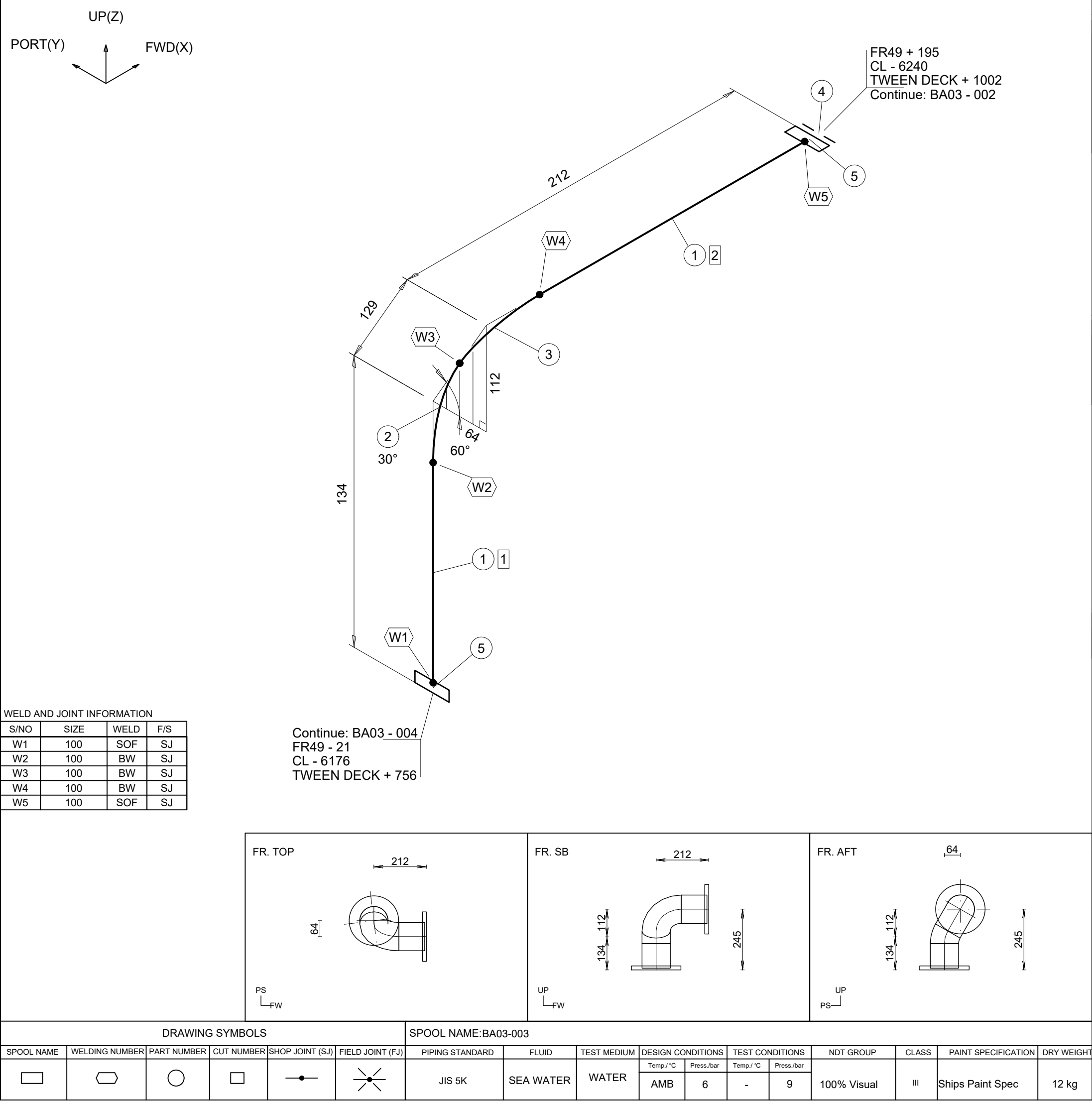
WELD AND JOINT INFORMATION


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

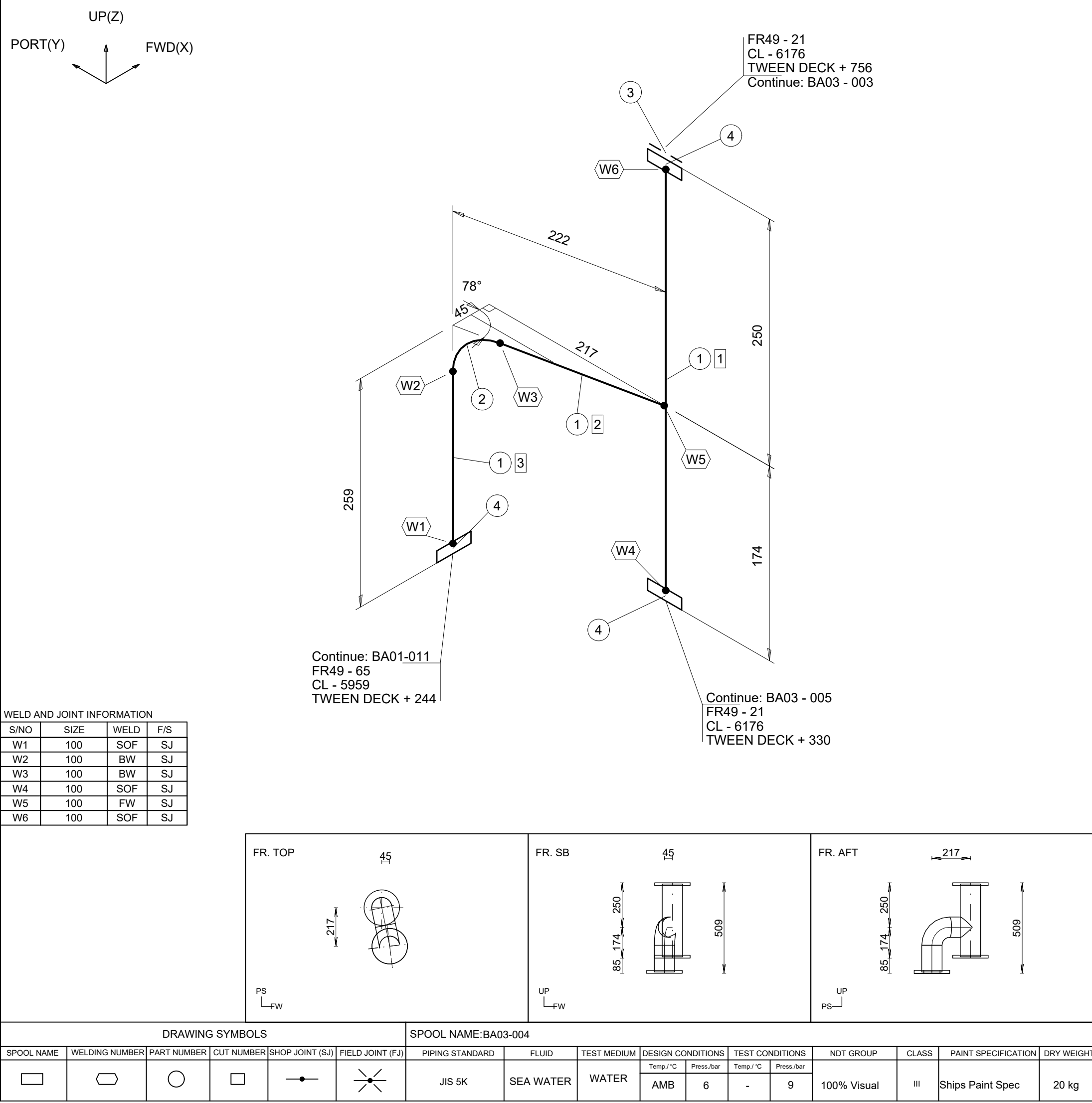



DRAWING SYMBOLS						SPOOL NAME:BA03-002										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 5K	SEA WATER	WATER	Temp./°C	Press./bar	Temp./°C	Press./bar	100% Visual	III	Ships Paint Spec	14 kg
									AMB	6	-	9				

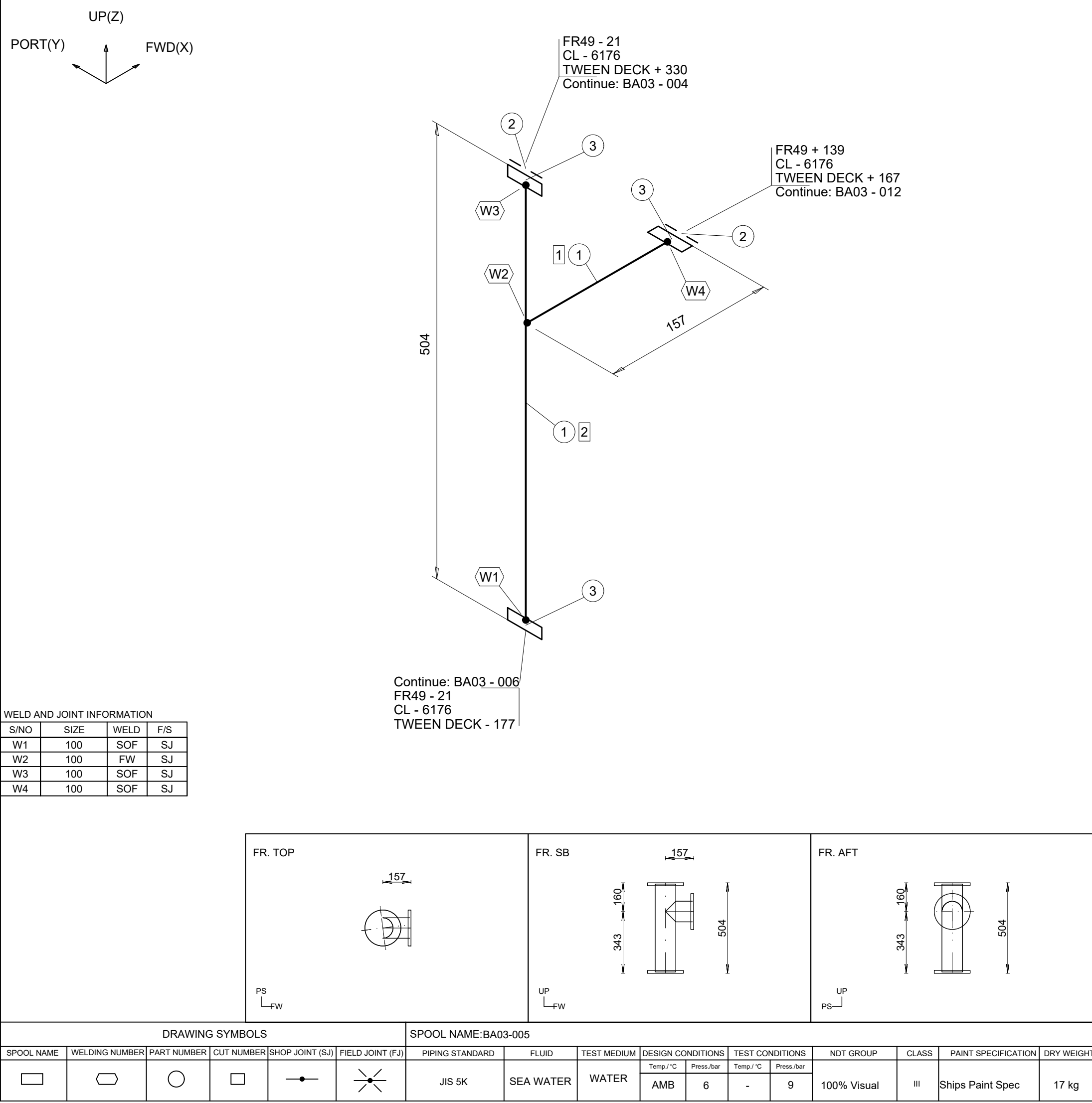
FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.11	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2		0.09	Pipe Seamless, BW	80A Sch40	STPG370	11.30
3	2		Elbow SR, BW 45 deg	100A Sch40	PG 370	2.69
4	1		Reducer Concentric, BW	100Ax80ASch40	PG 370	1.45
5	1		Flange SOFF	DN80 PN10	Carbon Steel	3.79
6	1		Flange SOFF	100A JIS5K	SF440	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	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						
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	18/39	BA03			A




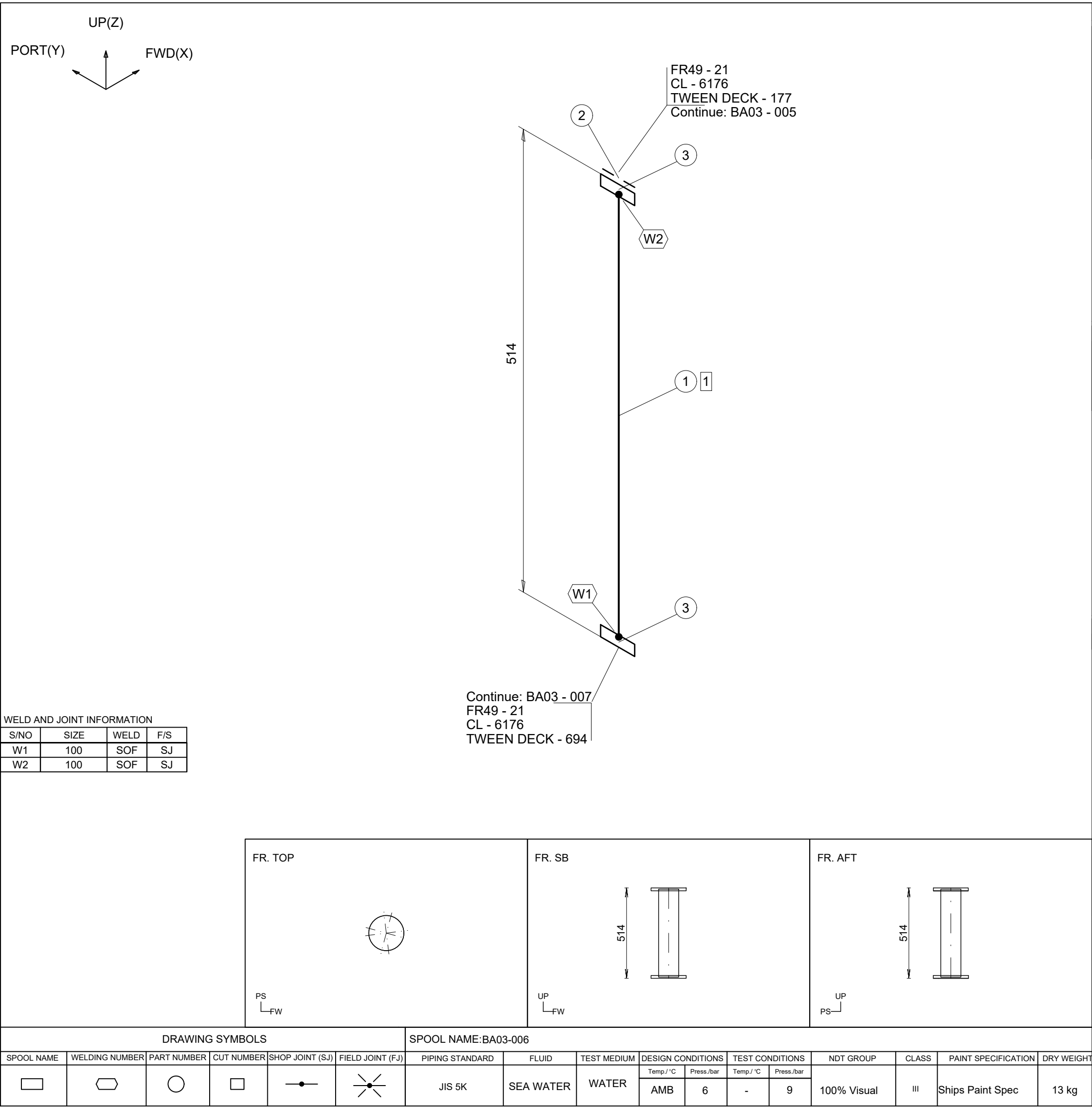
FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		0.20	Pipe Seamless, BW	100A Sch40	STPG370	16.00	
2	1		Elbow SR, BW 30 deg	100A Sch40	PG 370	2.69	
3	1		Elbow SR, BW 90 deg	100A Sch40	PG 370	2.69	
5	2		Flange SOFF	100A JIS5K	SF440	2.39	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
4	1	Gasket, JIS5K, 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:							
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							
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	19/39	BA03				A




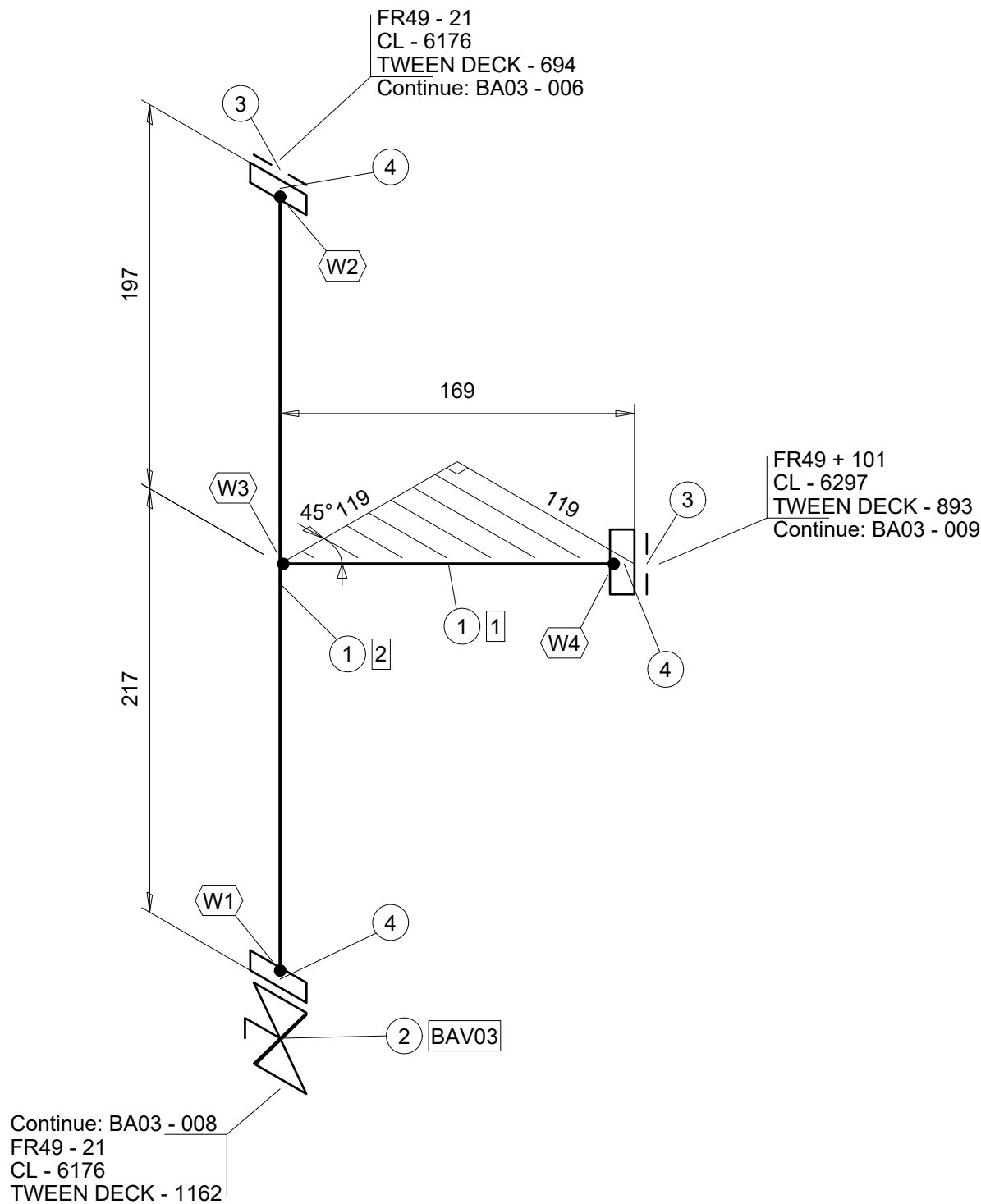
FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		0.68	Pipe Seamless, BW	100A Sch40	STPG370	16.00	
2	1		Elbow SR, BW 90 deg	100A Sch40	PG 370	2.69	
4	3		Flange SOFF	100A JIS5K	SF440	2.39	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
3	1	Gasket, JIS5K, Thk 3mm		100A	CNAF		
CUT INFORMATION							
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)	
1	Pipe Seamless, BW			100A Sch40	STPG370	410	
2	Pipe Seamless, BW			100A Sch40	STPG370	118	
3	Pipe Seamless, BW			100A 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							
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><div>Client: EMAS OFFSHORE LIMITED</div><div>BWTS Maker Name: BIO-SEA</div><div>Location: -</div><div>IMO No.: 9354947</div><div>Project No: P1482</div><div>Project Name: JP 88 STORK</div></div></div>							
Drawing title:							
SPOOL-DRAWING FOR PIPE BA03							
Scale	Format	Sheet	Drawing No:			Revision No.	
N.T.S	A3	20/39	BA03			A	



FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		0.64	Pipe Seamless, BW	100A Sch40	STPG370	16.00	
3	3		Flange SOFF	100A JIS5K	SF440	2.39	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
2	2	Gasket, JIS5K, 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	490	
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							
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	21/39	BA03			A	



FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		0.50	Pipe Seamless, BW	100A Sch40	STPG370	16.00	
3	2		Flange SOFF	100A JIS5K	SF440	2.39	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
2	1	Gasket, JIS5K, Thk 3mm		100A	CNAF		
CUT INFORMATION							
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)	
1	Pipe Seamless, BW			100A Sch40	STPG370	500	
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							
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	22/39	BA03			A	



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

ERECTION MATERIAL					
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
2	1	Butterfly Valve Manual	100A JIS5K	-	8.40
3	2	Gasket, JIS5K, 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

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

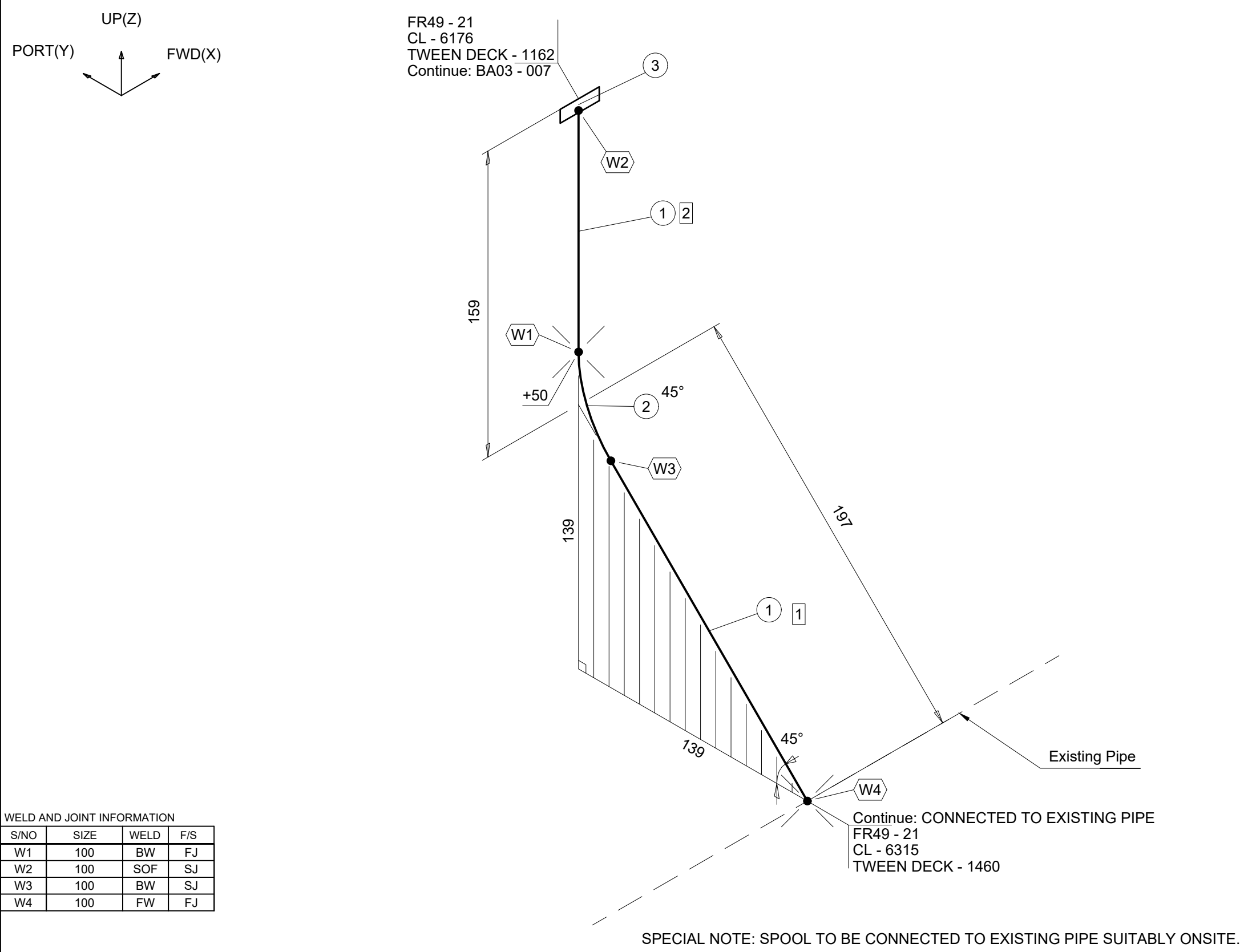


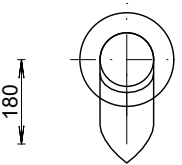
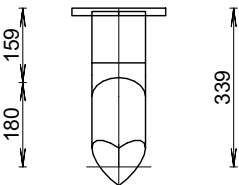
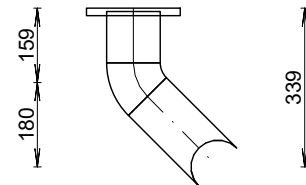






Client: EMAS OFFSHORE LIMITED	BWTS Maker Name: BIO-SEA
Location: -	IMO No.: 9354947
Project No: P1482	Project Name: JP 88 STORK


Drawing title:	SPOOL-DRAWING FOR PIPE BA03
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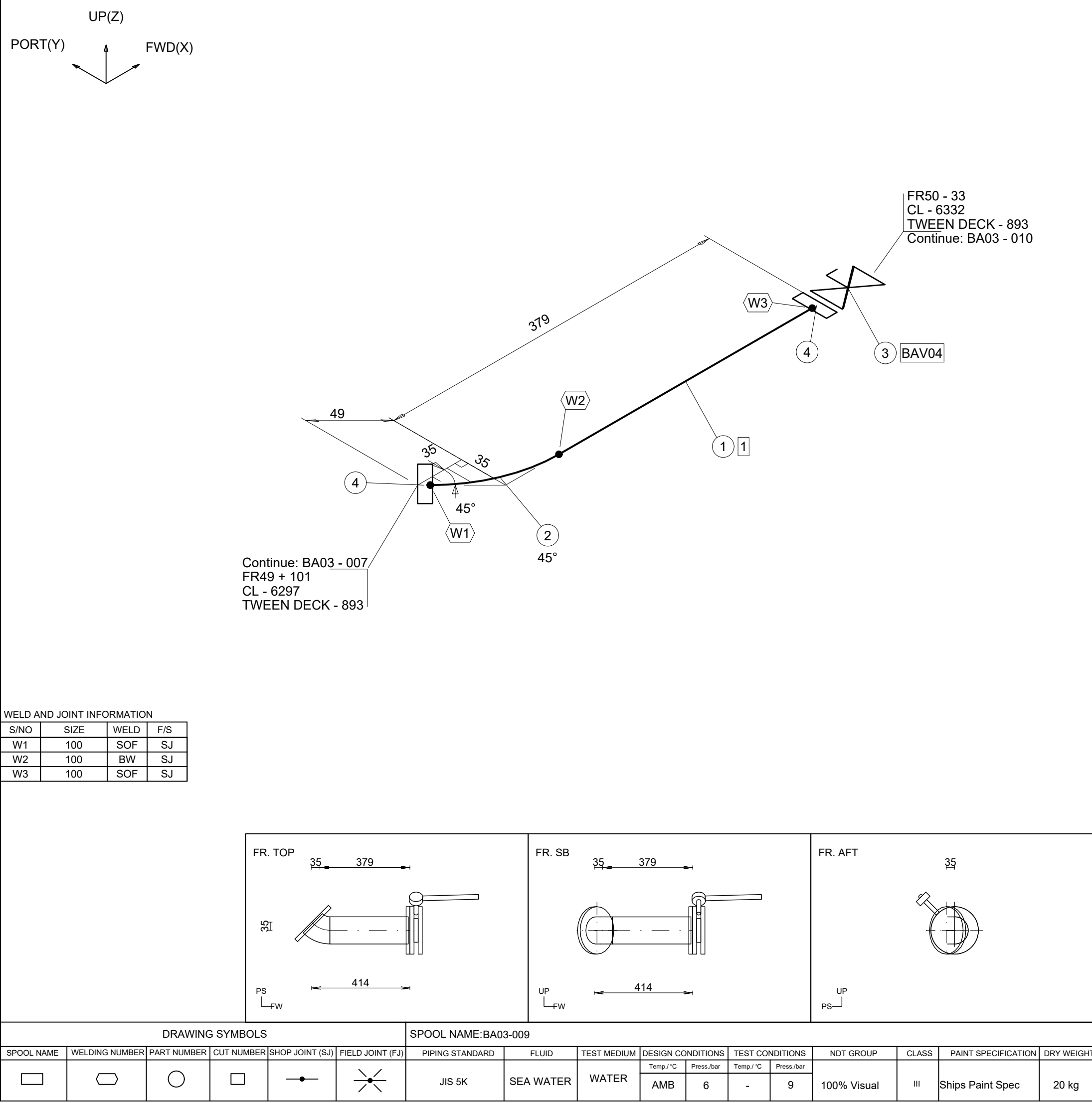
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SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 5K	SEA WATER	WATER	Temp / °C	Press./bar	Temp / °C	Press./bar	100% Visual	III	Ships Paint Spec	24 kg
									AMB	6	-	9				


Scale N.T.S	Format A3	Sheet 23/39	Drawing No: BA03	Revision No. A
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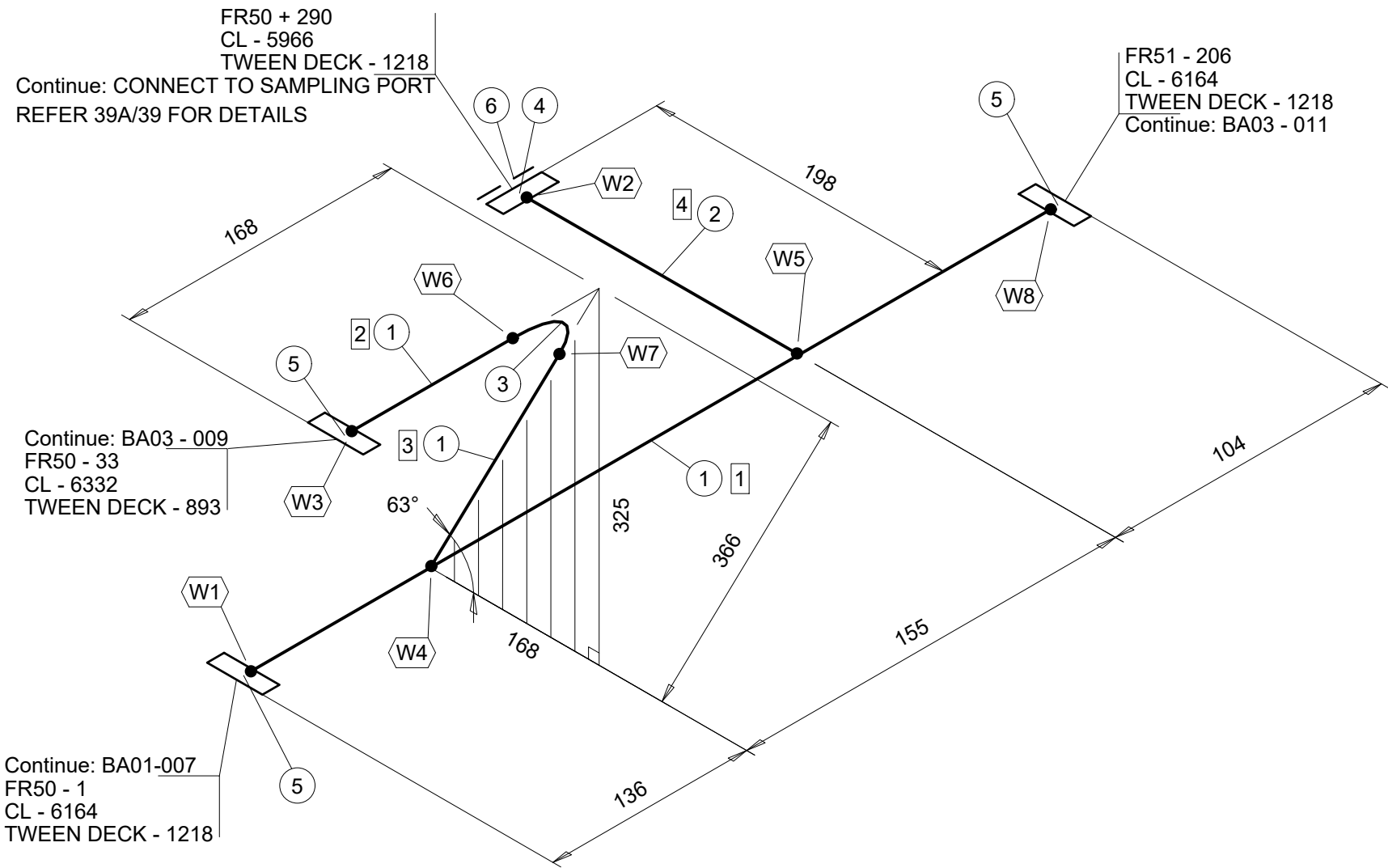
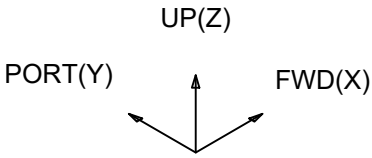


FR. TOP						FR. SB						FR. AFT					
																	
PS └FW						UP └FW						PS └UP					
DRAWING SYMBOLS						SPOOL NAME:BA03-008											
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT	
						JIS 5K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	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 JIS5K	SF440	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						
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY
<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	24/39	BA03			A

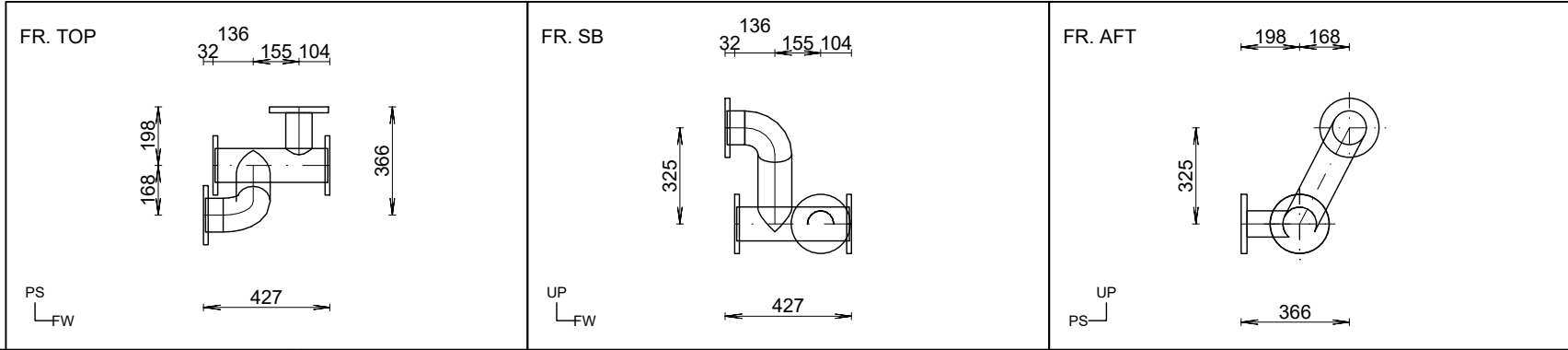








FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		0.33	Pipe Seamless, BW	100A Sch40	STPG370	16.00	
2	1		Elbow SR, BW 45 deg	100A Sch40	PG 370	2.69	
4	2		Flange SOFF	100A JIS5K	SF440	2.39	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
3	1	Butterfly Valve Manual		100A JIS5K	-	8.40	
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							
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	25/39	BA03			A	



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 5K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	26 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	1		Flange SOFF	DN80 PN10	Carbon Steel	3.79
5	3		Flange SOFF	100A JIS5K	SF440	2.39

ERECTION MATERIAL					
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
6	1	Gasket, PN10, Thk 3mm	DN80	CNAF	

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

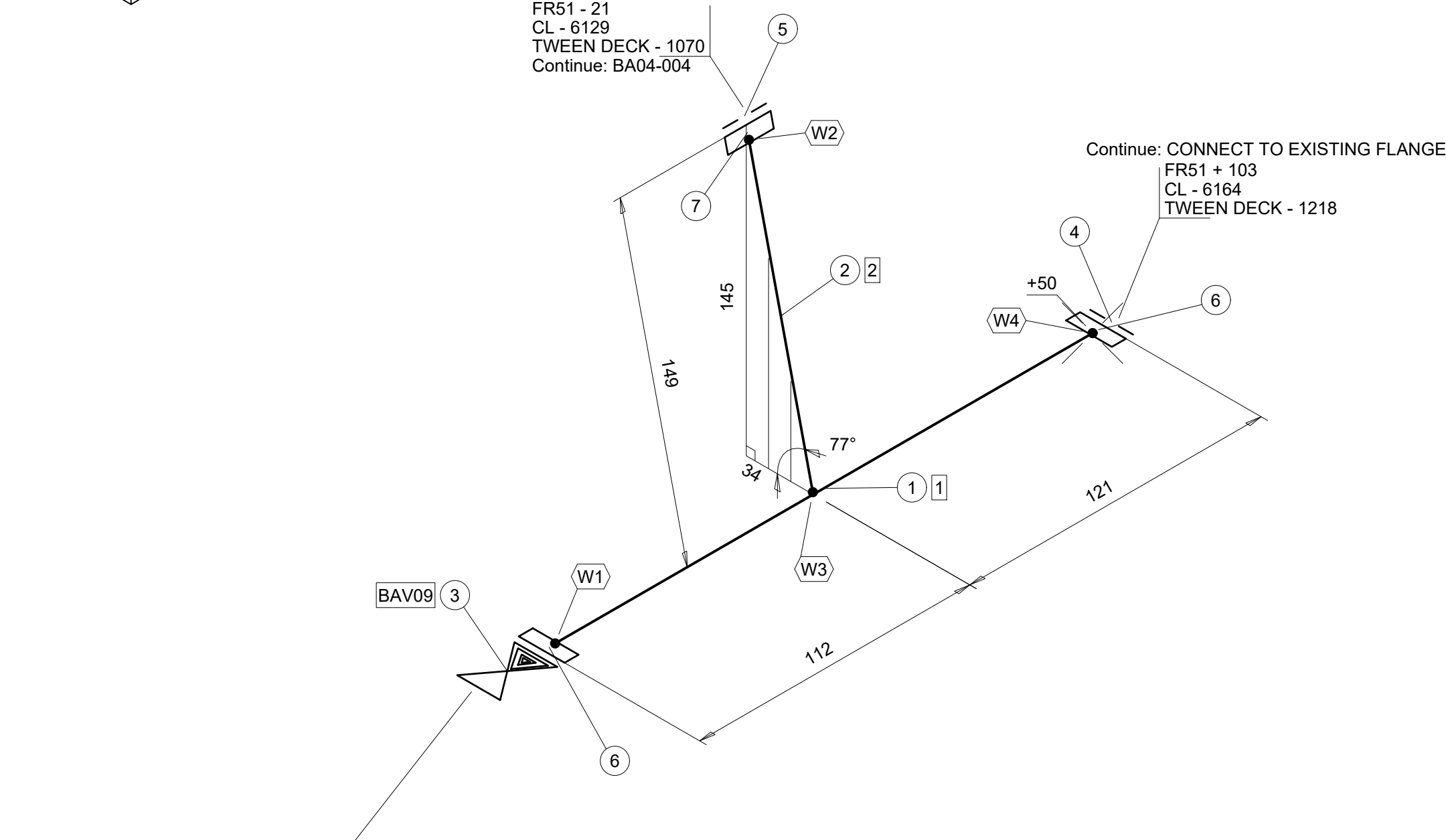
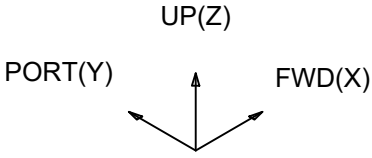
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.

4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED

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		

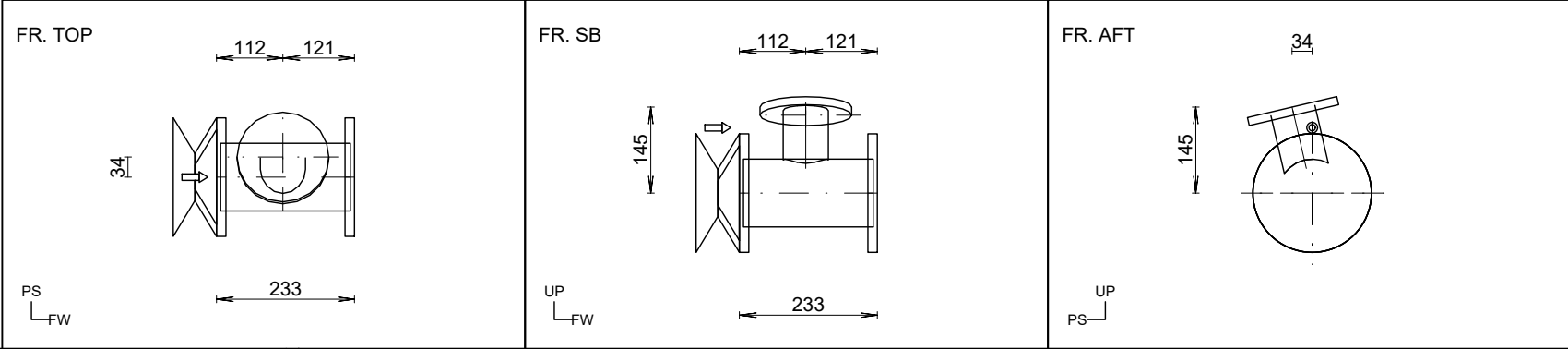
SPOOL-DRAWING FOR PIPE BA03						
Scale	Format	Sheet	Drawing No:		Revision No.	
N.T.S	A3	26/39	BA03		A	









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

Continue: BA03 - 010
FR51 - 206
CL - 6164
TWEEN DECK - 1218

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 5K	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		0.27	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2		0.10	Pipe Seamless, BW	65A Sch40	STPG370	9.12
6	2		Flange SOFF	100A JIS5K	SF440	2.39
7	1		Flange SOFF	65A JIS5K	SF440	1.49

ERECTION MATERIAL						
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)
3	1	Dual Plate Check valve		100A JIS5K	-	8.50
4	1	Gasket, JIS5K, Thk 3mm		100A	CNAF	
5	1	Gasket, JIS5K, Thk 3mm		65A	CNAF	

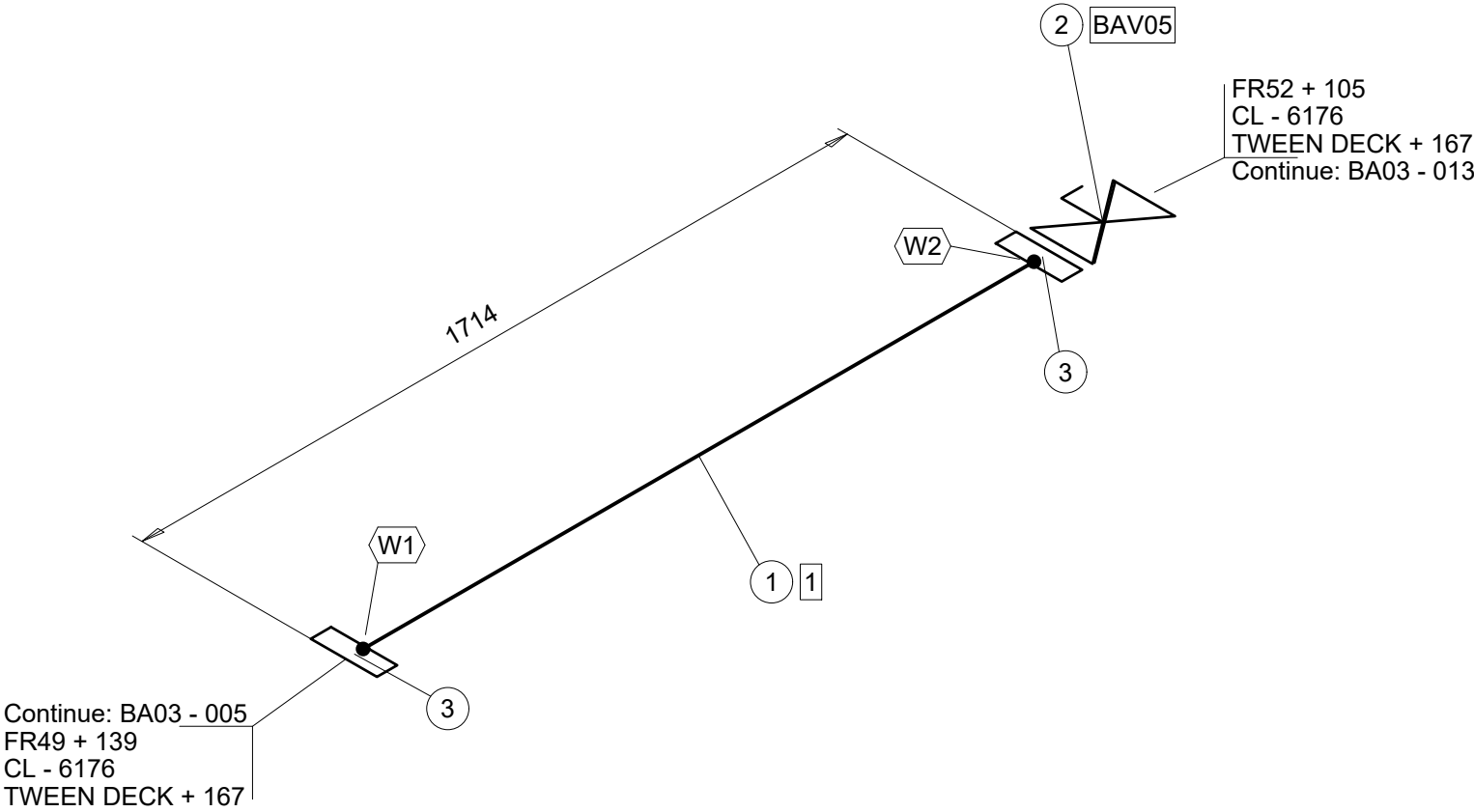
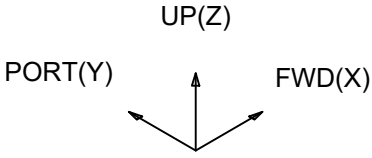
CUT INFORMATION				
CUT NO.	DESCRIPTION	SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW	100A Sch40	STPG370	270
2	Pipe Seamless, BW	65A Sch40	STPG370	101

NOTES:
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

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

SPOOL-DRAWING FOR PIPE BA03						
Scale	Format	Sheet	Drawing No:			Revision No.
N.T.S	A3	27/39	BA03			A



FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		1.70	Pipe Seamless, BW	100A Sch40	STPG370	16.00
3	2		Flange SOFF	100A JIS5K	SF440	2.39

ERECTION MATERIAL					
PART	QTY.	DESCRIPTION		SIZE	UNIT Wt. (kg)
2	1	Butterfly Valve Manual		100A JIS5K	8.40

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

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	28/39	BA03	A

WELD AND JOINT INFORMATION

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

FR. TOP







PS
└FW

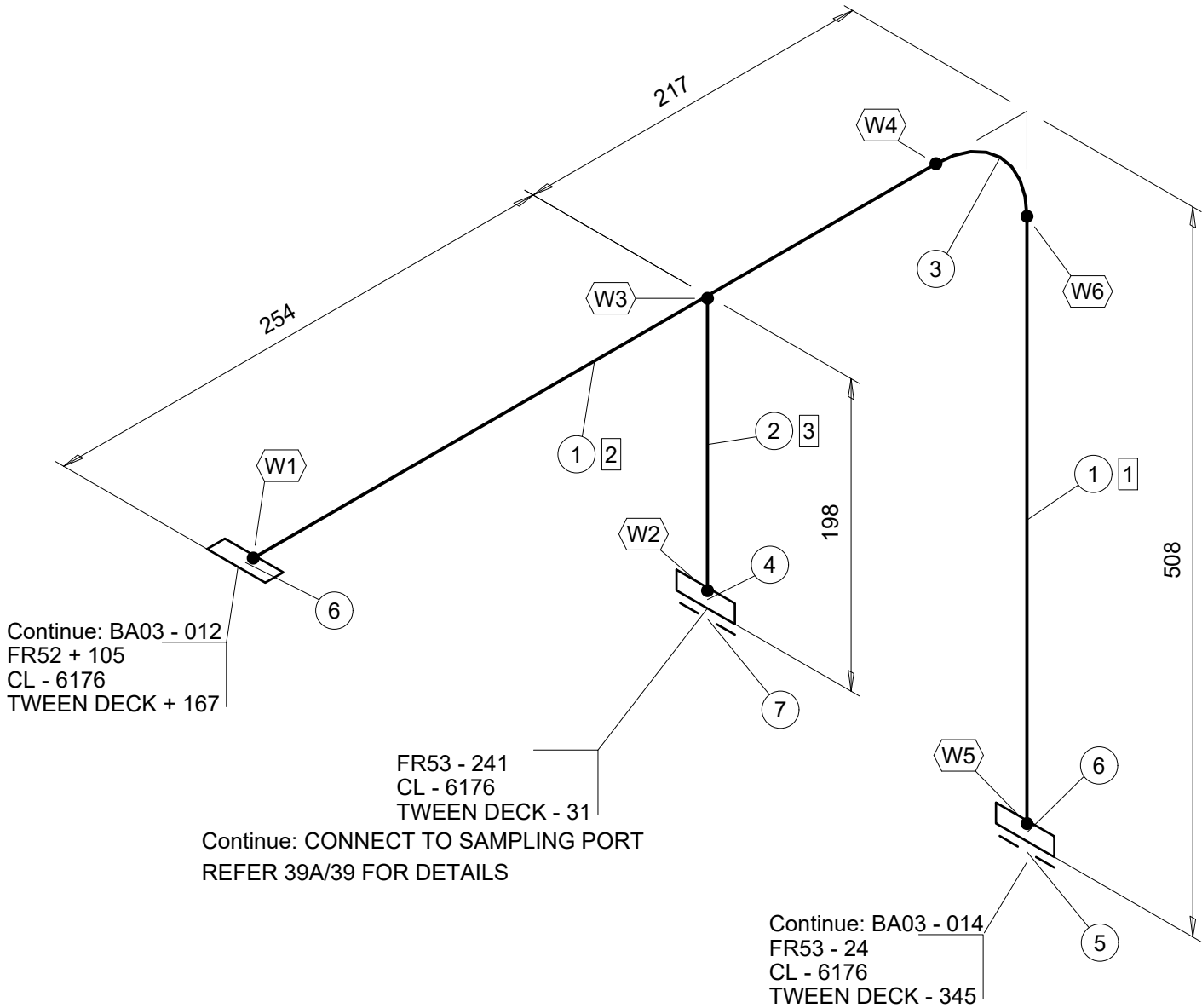
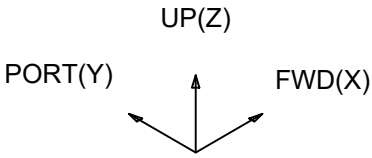
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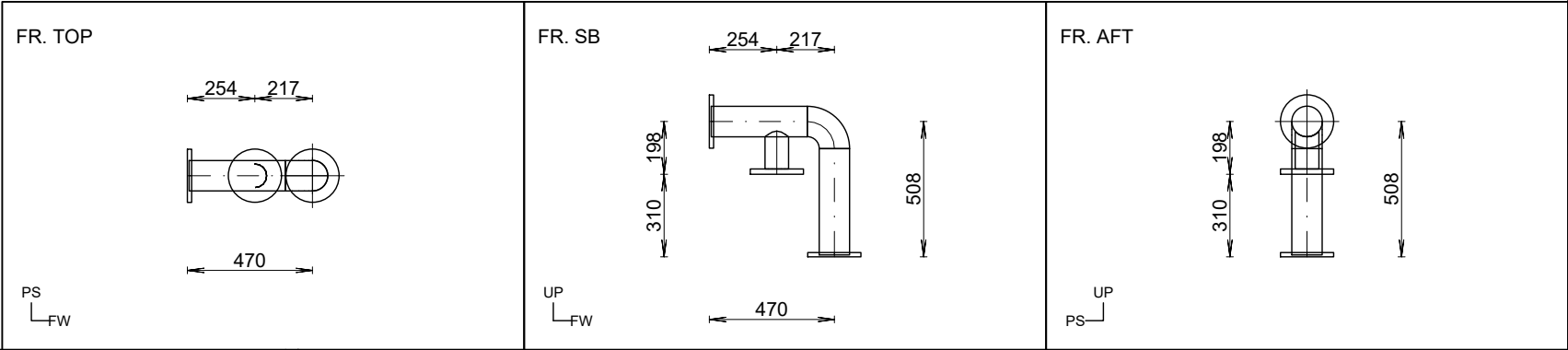
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└UP







DRAWING SYMBOLS						SPOOL NAME:BA03-012										
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 5K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	41 kg
									AMB	6	-	9				



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



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 5K	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		0.76	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	1		Flange SOFF	DN80 PN10	Carbon Steel	3.79
6	2		Flange SOFF	100A JIS5K	SF440	2.39

ERECTION MATERIAL					
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
5	1	Gasket, JIS5K, Thk 3mm	100A	CNAF	
7	1	Gasket, PN10, Thk 3mm	DN80	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

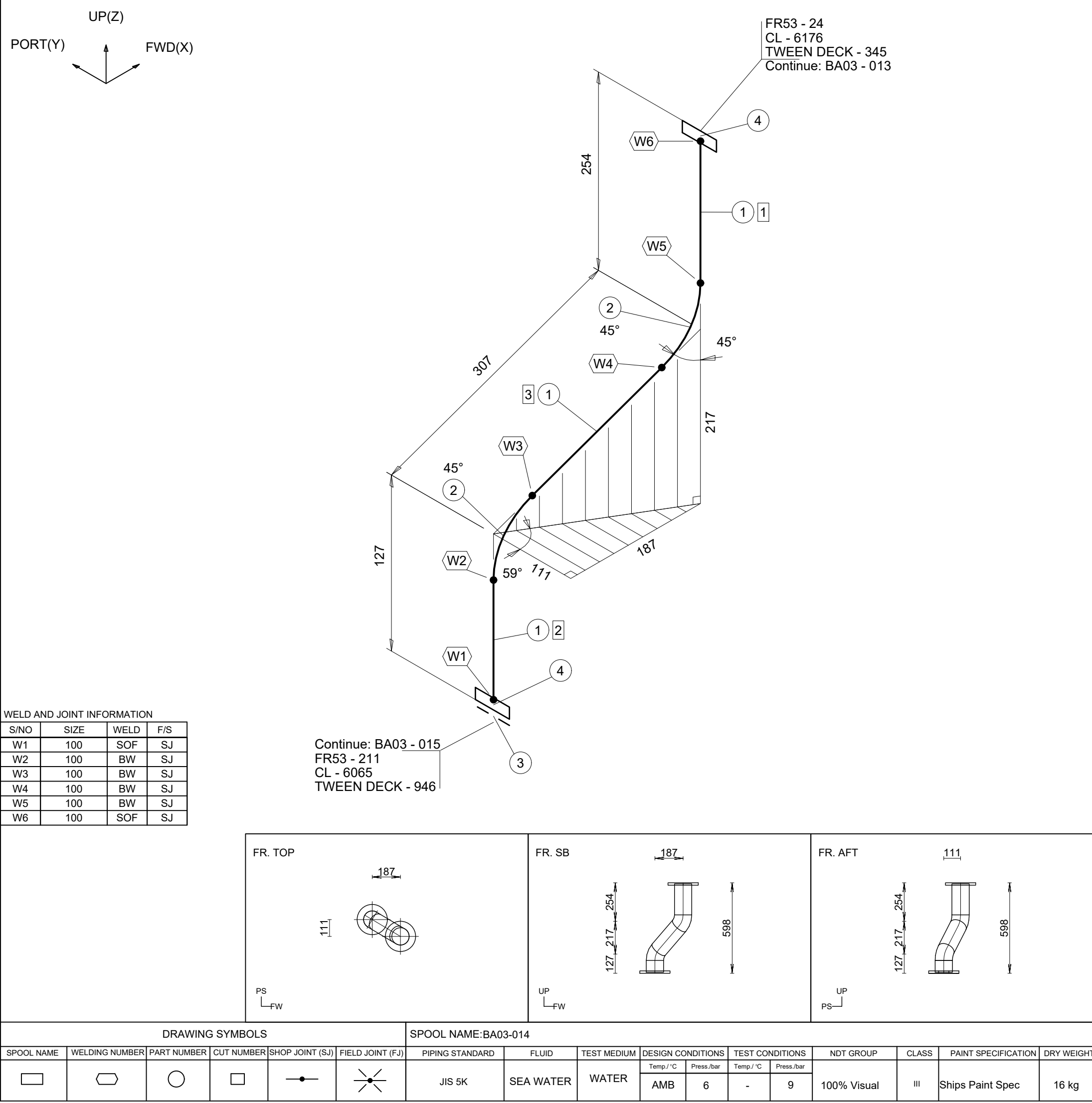
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.

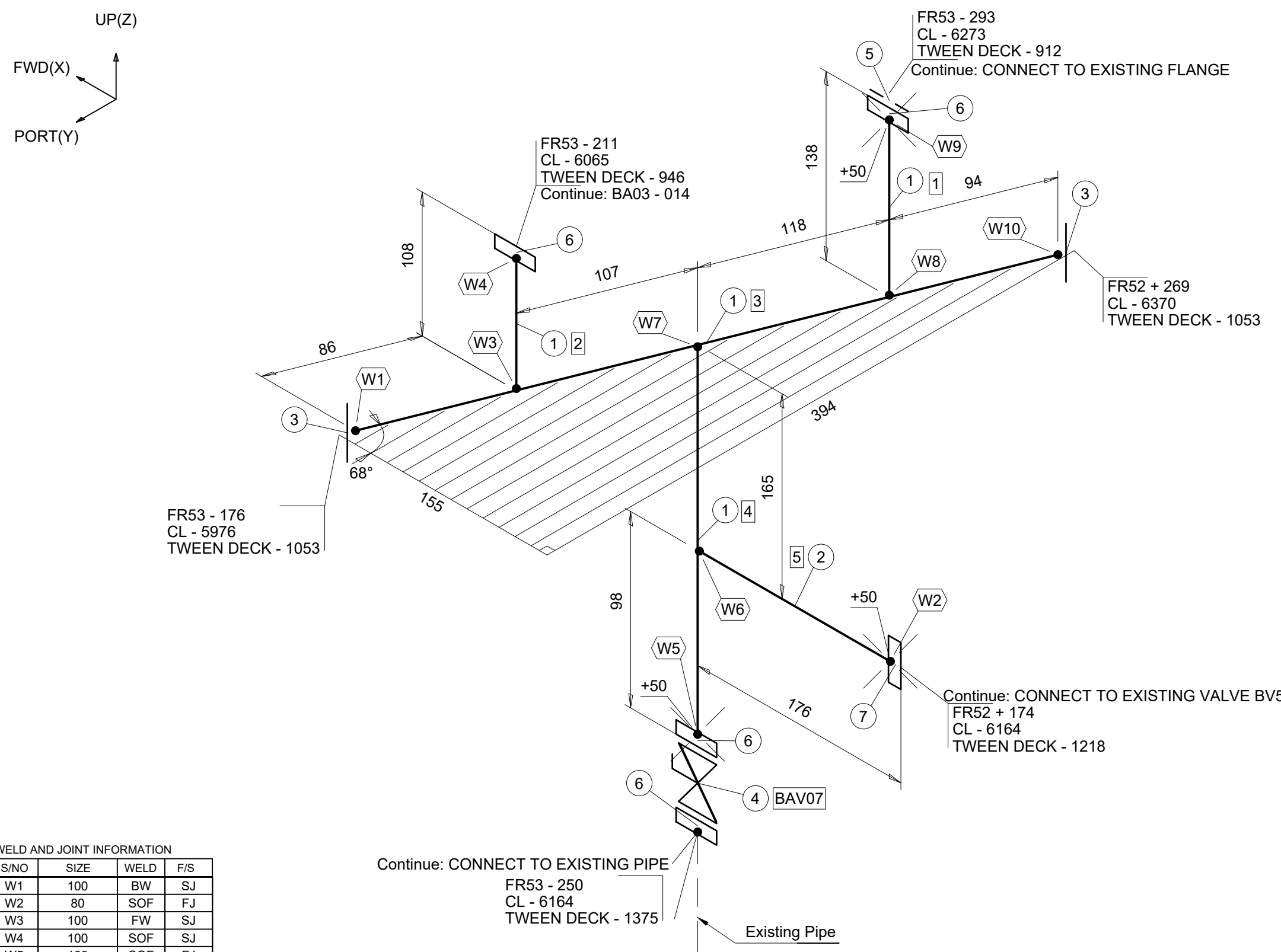
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED

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	29/39	BA03	A	

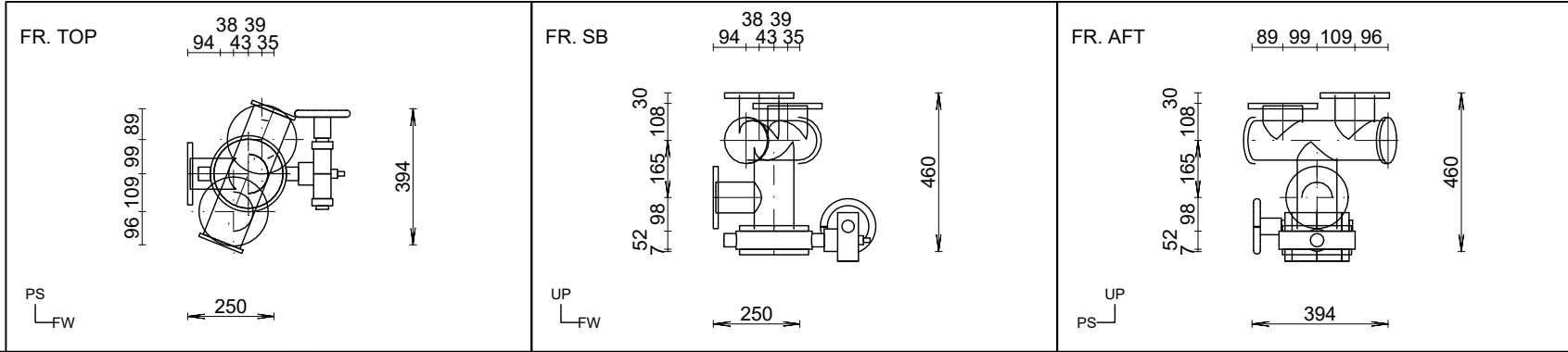










WELD AND JOINT INFORMATION

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	FJ
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 5K	SEA WATER	WATER	Temp./°C	Press./bar	Temp./°C	Press./bar	100% Visual	III	Ships Paint Spec	56 kg
									AMB	6	-	9				

FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.98	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2		0.18	Pipe Seamless, BW	80A Sch40	STPG370	11.30
3	2		Blind plate	100A	SS 400	0.77
6	4		Flange SOFF	100A JIS5K	SF440	2.39
7	1		Flange SOFF	80A JIS5K	SF440	1.99

ERECTION MATERIAL						
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)
4	1	Butterfly Valve Manual		100A JIS 5K	-	27.00
5	1	Gasket, JIS5K, Thk 3mm		100A	CNAF	

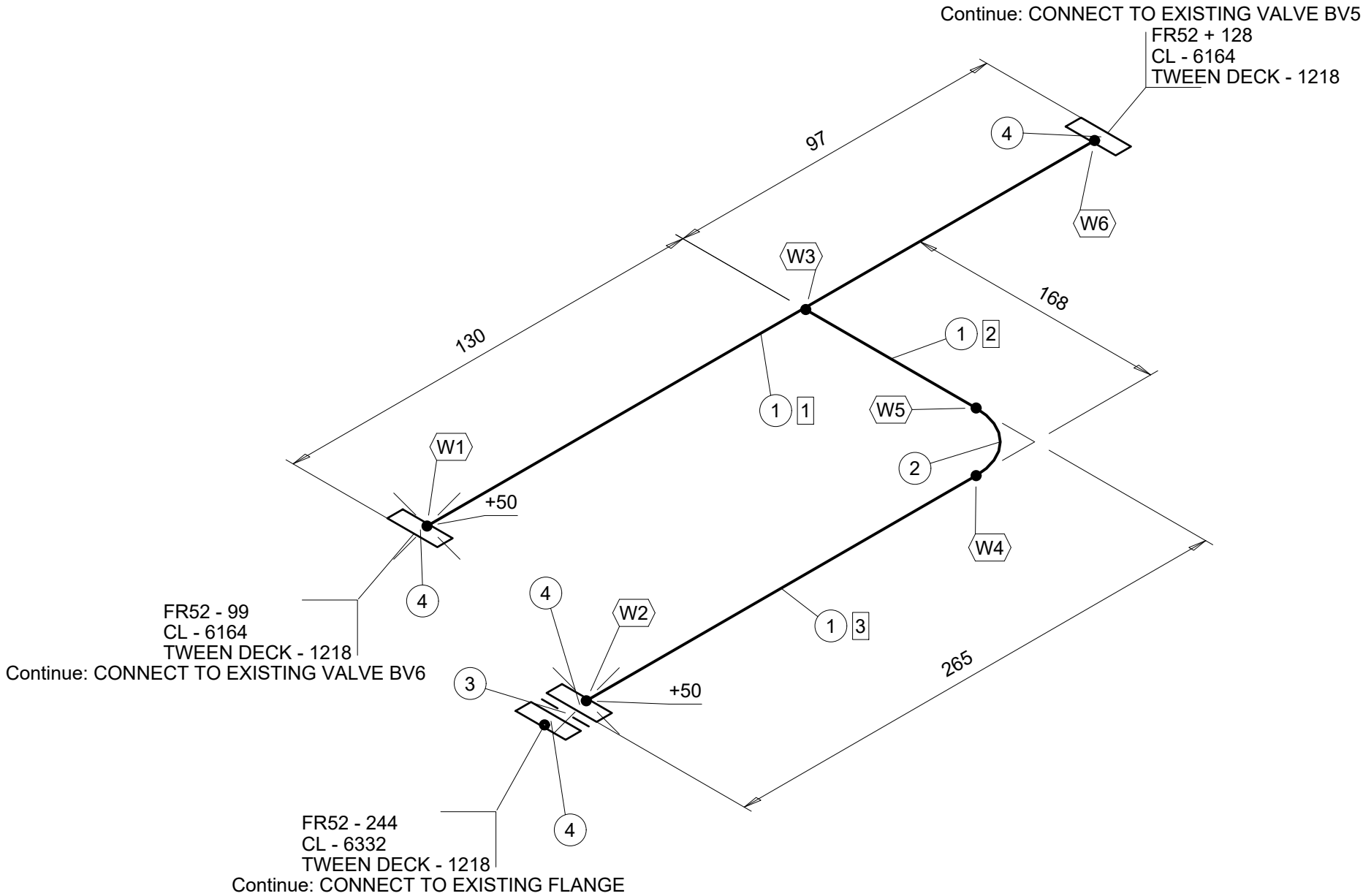
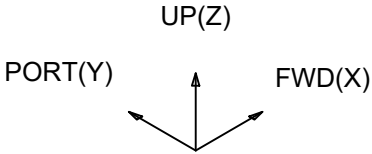
CUT INFORMATION				
CUT NO.	DESCRIPTION	SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW	100A Sch40	STPG370	179
2	Pipe Seamless, BW	100A Sch40	STPG370	99
3	Pipe Seamless, BW	100A Sch40	STPG370	404
4	Pipe Seamless, BW	100A Sch40	STPG370	304
5	Pipe Seamless, BW	80A Sch40	STPG370	183

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

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		

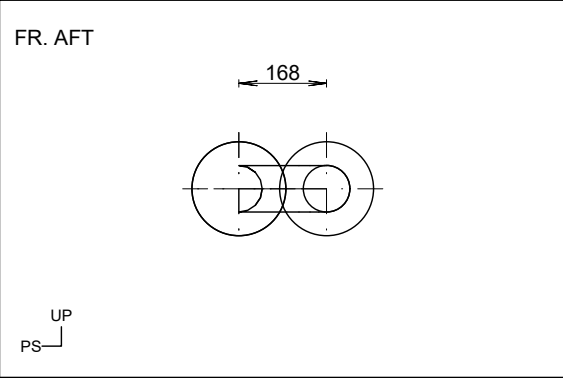
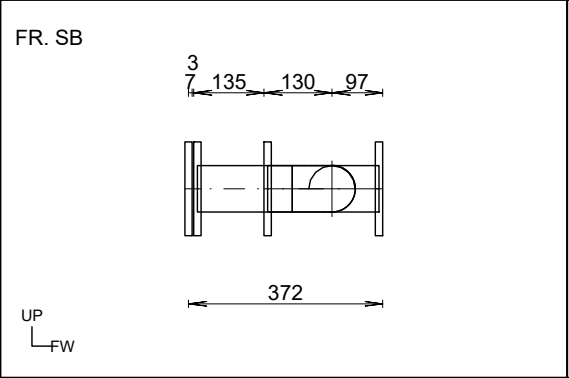
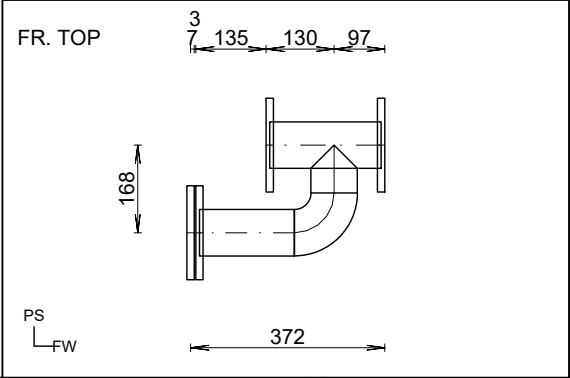
Drawing title: SPOOL-DRAWING FOR PIPE BA03					
Scale	Format	Sheet	Drawing No:		Revision No.
N.T.S	A3	31/39	BA03		A










WELD AND JOINT INFORMATION

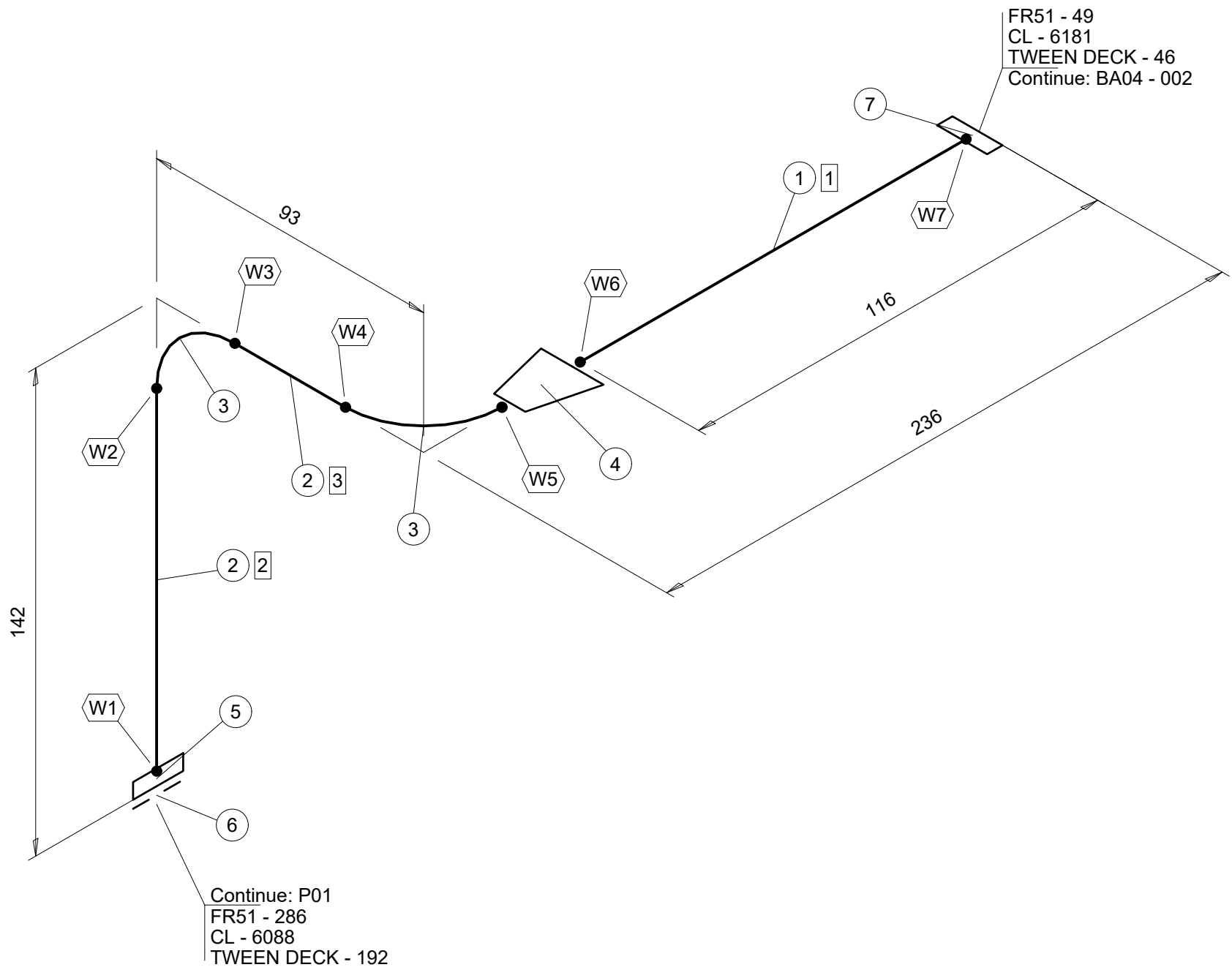
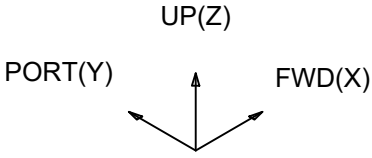
S/NO	SIZE	WELD	F/S
W1	80	SOF	FJ
W2	80	SOF	FJ
W3	80	FW	SJ
W4	80	BW	SJ
W5	80	BW	SJ
W6	80	SOF	SJ

SPECIAL NOTE: SPOOL TO BE CONNECTED TO EXISTING FLANGE 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 5K	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		0.59	Pipe Seamless, BW	80A Sch40	STPG370	11.30
2	1		Elbow SR, BW 90 deg	80A Sch40	PG 370	1.43
4	4		Flange SOFF	80A JIS5K	SF440	1.99
ERECTION MATERIAL						
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)
3	1	Gasket, JIS5K, 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						
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	32/39	BA03			A



FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.11	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	DN32 PN10	Carbon Steel	1.62
7	1		Flange SOFF	65A JIS5K	SF440	1.49

ERECTION MATERIAL					
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
6	1	Gasket, PN10, Thk 3mm	DN32	CNAF	

CUT INFORMATION				
CUT NO.	DESCRIPTION	SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW	65A Sch40	STPG370	110
2	Pipe Seamless, BW	32A Sch40	STPG370	100
3	Pipe Seamless, BW	32A Sch40	STPG370	30

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

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 BA04

Scale	Format	Sheet	Drawing No:	Revision No.
N.T.S	A3	33/39	BA04	A







WELD AND JOINT INFORMATION

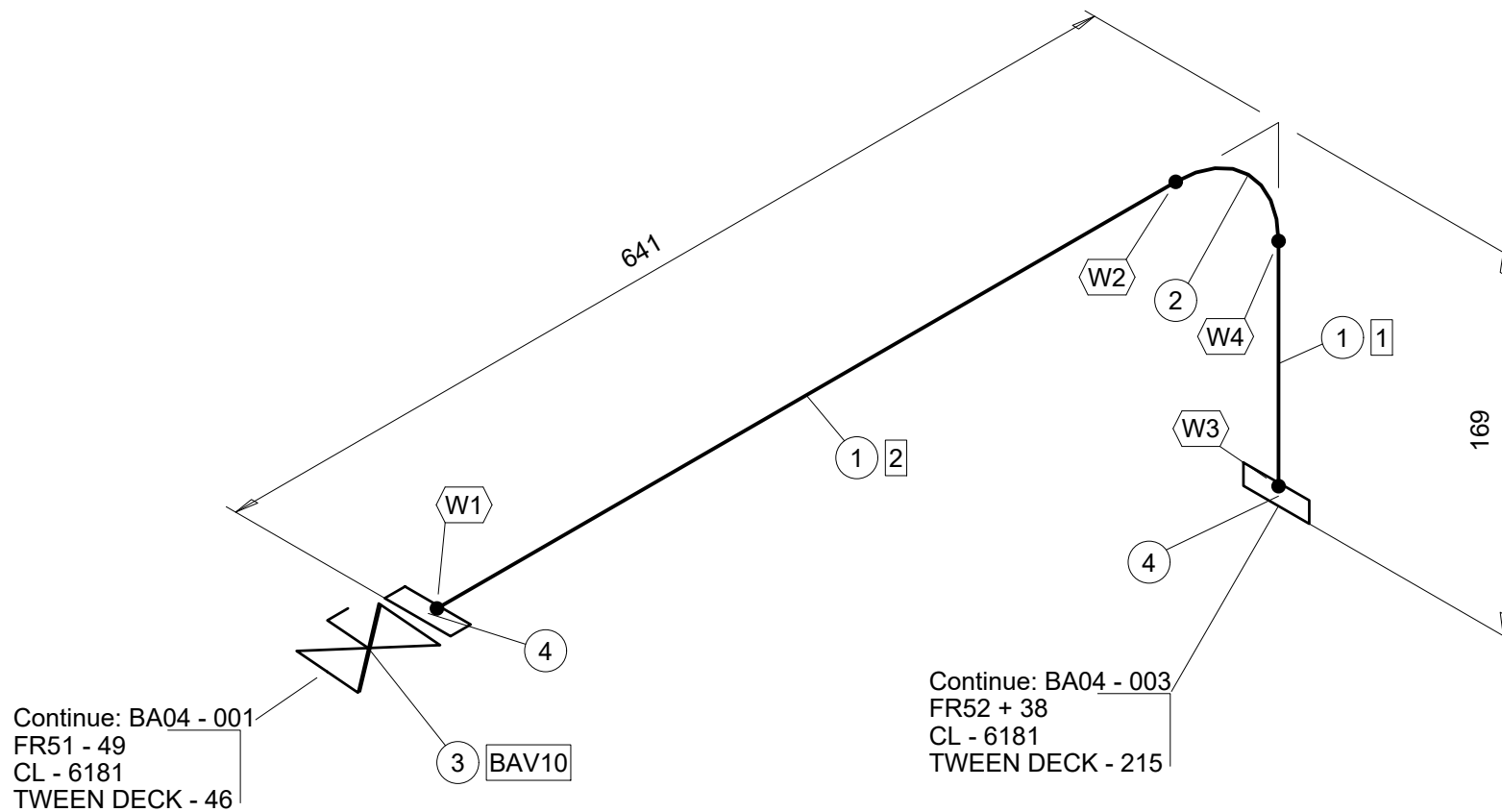
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W1	32	SOF	SJ
W2	32	BW	SJ
W3	32	BW	SJ
W4	32	BW	SJ
W5	32	BW	SJ
W6	65	BW	SJ
W7	65	SOF	SJ

FR. TOP
236
93
PS
FW

FR. SB
236
142
UP
FW

FR. AFT
93
142
PS
UP

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 5K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	6 kg
									AMB	6	-	9				




ERECTION MATERIAL					
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT WT. (kg)
3	1	Butterfly Valve Manual	65A JIS5K	-	5.00

CUT INFORMATION				
CUT NO.	DESCRIPTION	SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW	65A Sch40	STPG370	100
2	Pipe Seamless, BW	65A Sch40	STPG370	572

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



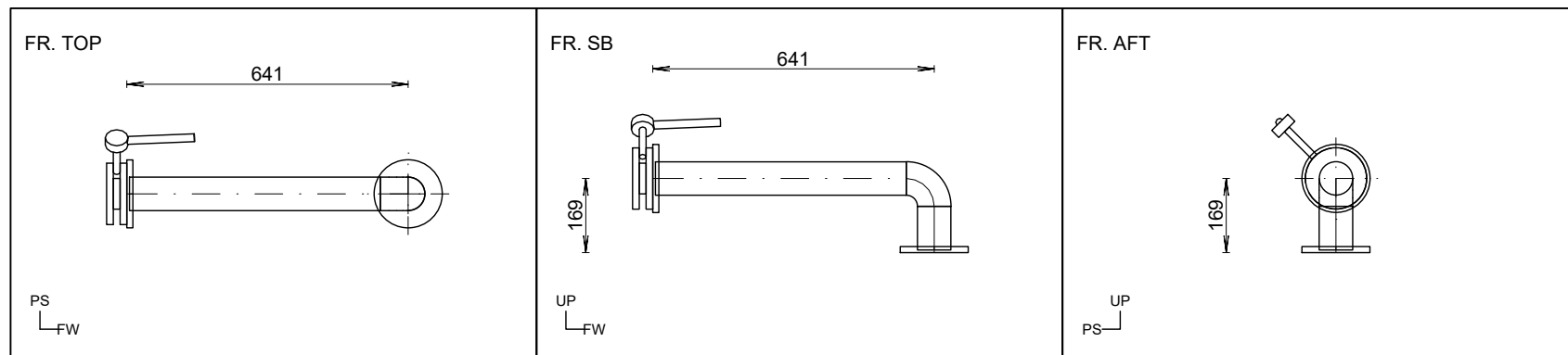
Goltens







Singapore Pte Ltd.

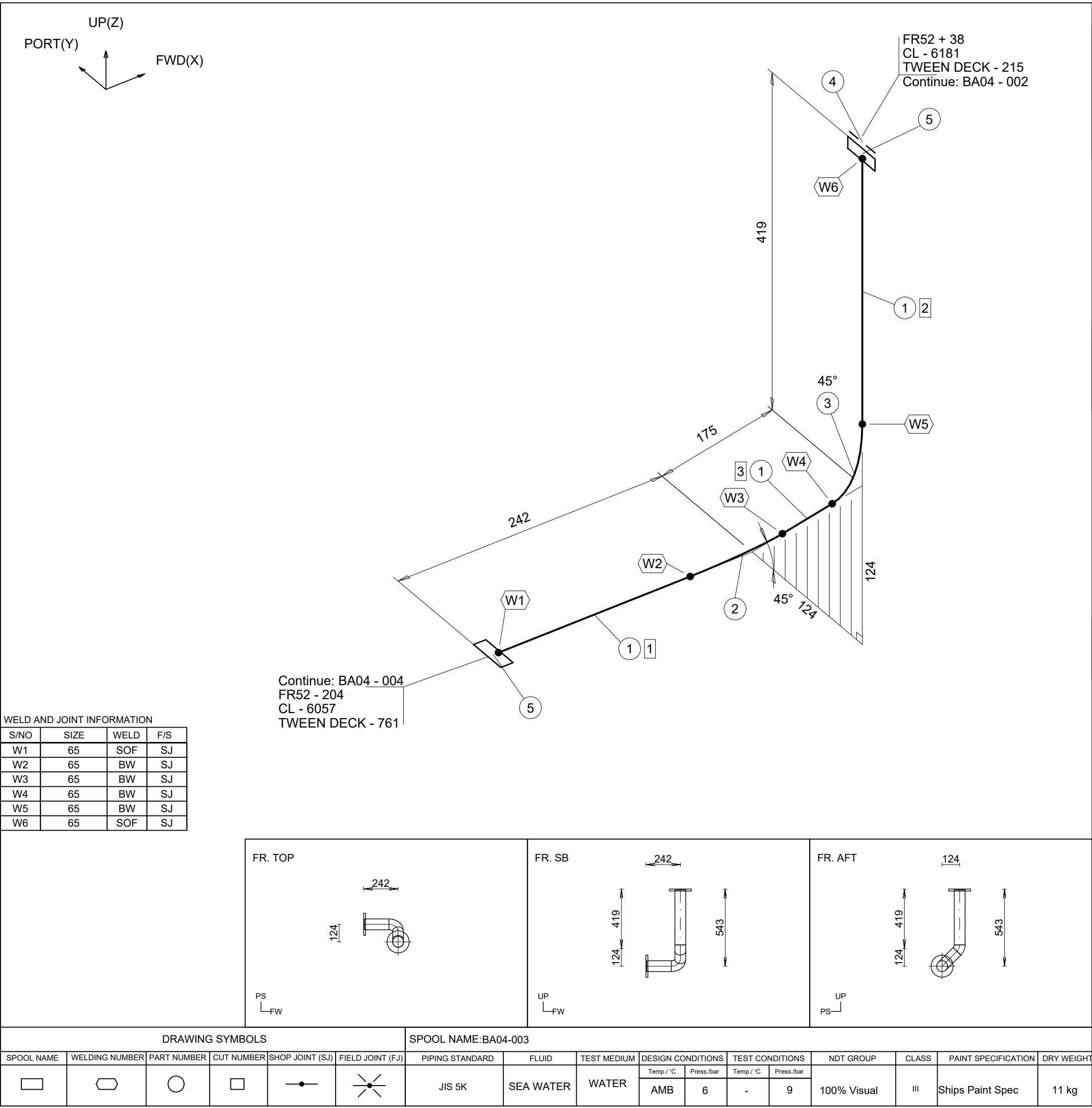
Client: EMAS OFFSHORE LIMITED	BWTS Maker Name: BIO-SEA
Location: -	IMO No.: 9354947
Project No: P1482	Project Name: JP 88 STORK


Drawing title:		SPOOL-DRAWING FOR PIPE BA04				
HT						
Scale	Format	Sheet	Drawing No:			Revision No:
N.T.S	A3	34/39	BA04			A

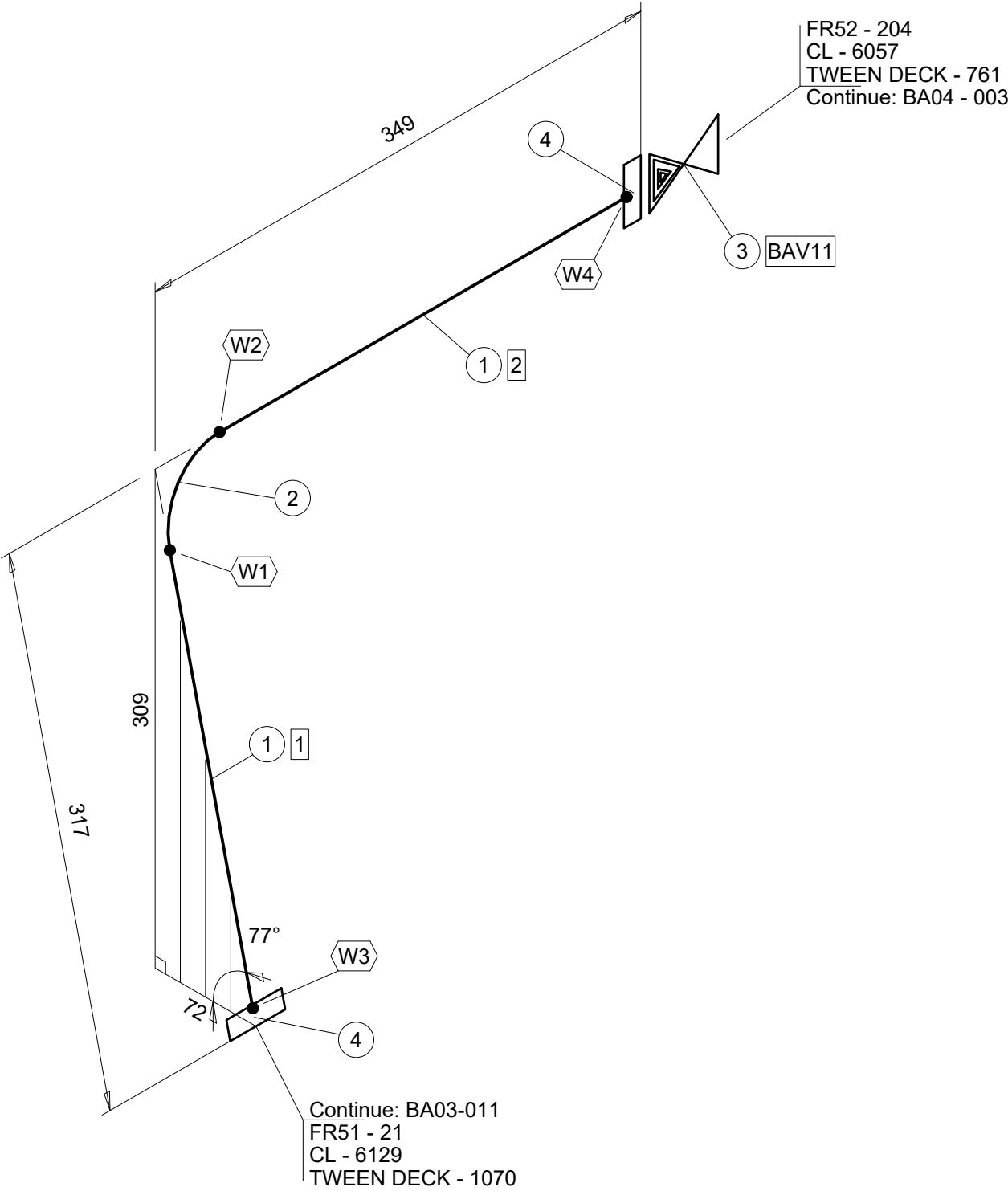
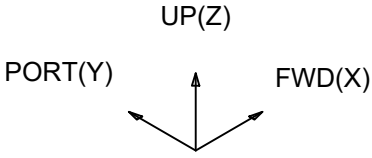
WELD AND JOINT INFORMATION			
S/NO	SIZE	WELD	F/S
W1	65	SOF	SJ
W2	65	BW	SJ
W3	65	SOF	SJ
W4	65	BW	SJ



DRAWING SYMBOLS						SPOOL NAME:BA04-002										
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 5K	SEA WATER	WATER	Temp./°C	Press./bar	Temp./°C	Press./bar	100% Visual	III	Ships Paint Spec	16 kg
									AMB	6	-	9				

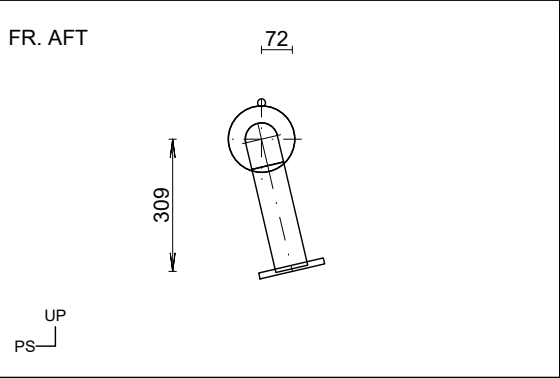
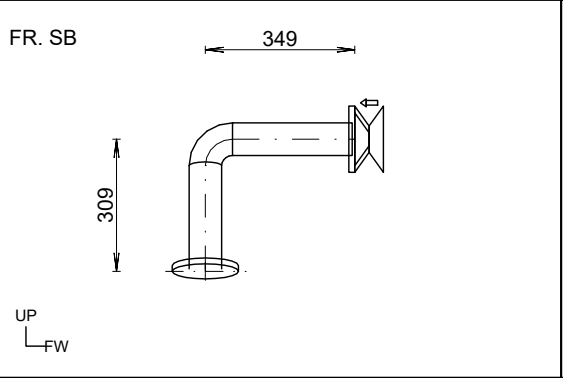
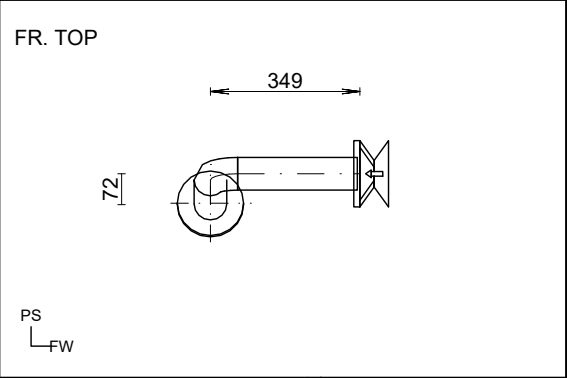








FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.64	Pipe Seamless, BW	65A Sch40	STPG370	9.12
2	1		Elbow SR, BW 90 deg	65A Sch40	PG 370	0.96
3	1		Elbow SR, BW 45 deg	65A Sch40	PG 370	0.96
5	2		Flange SOFF	65A JIS5K	SF440	1.49
ERECTION MATERIAL						
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)
4	1	Gasket, JIS5K, 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						
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY
<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	35/39	BA04			A



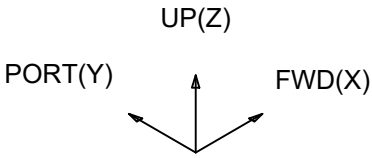
WELD AND JOINT INFORMATION

S/NO	SIZE	WELD	F/S
W1	65	BW	SJ
W2	65	BW	SJ
W3	65	SOF	SJ
W4	65	SOF	SJ

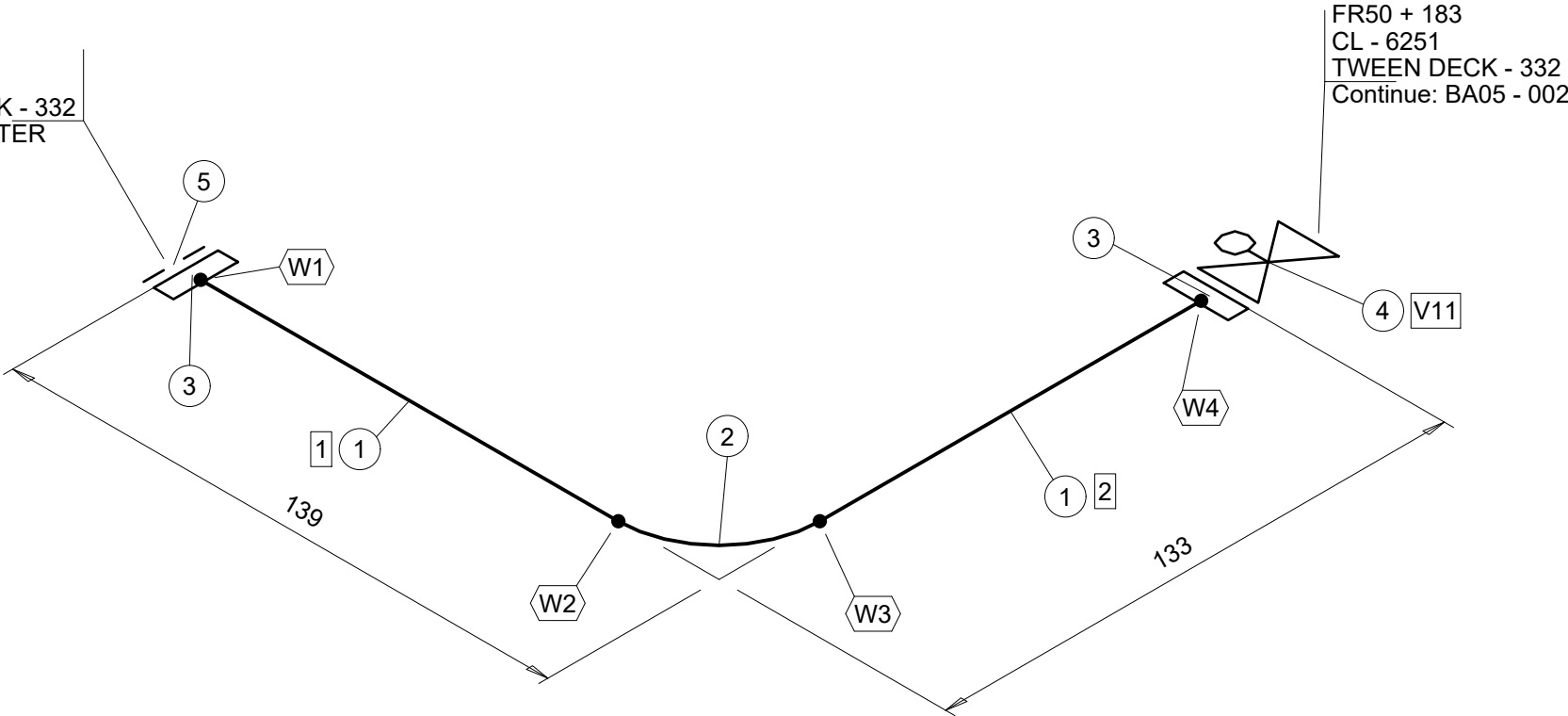


DRAWING SYMBOLS						SPOOL NAME:BA04-004										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 5K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	13 kg
									AMB	6	-	9				

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
4	2		Flange SOFF	65A JIS5K	SF440	1.49
ERECTION MATERIAL						
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)
3	1	Dual Plate Check valve		65A JIS5K	-	4.00
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						



FR50 + 7
CL - 6109
TWEEN DECK - 332
Continue: FILTER



FR50 + 183
CL - 6251
TWEEN DECK - 332
Continue: BA05 - 002

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
5	1	Gasket, PN10, Thk 3mm	DN50	CNAF	

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

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

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 BA05					
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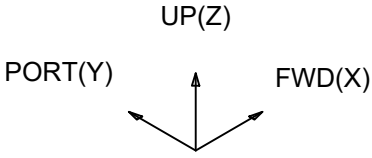
Scale	Format	Sheet	Drawing No:	Revision No.
N.T.S	A3	37/39	BA05	A

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 		
PS FW			UP FW			UP PS		

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
						JIS 5K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	8 kg
									AMB	6	-	9				



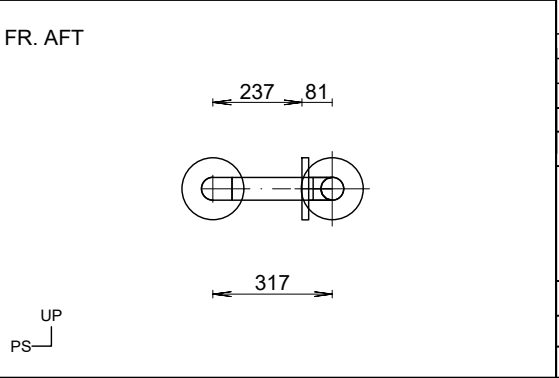
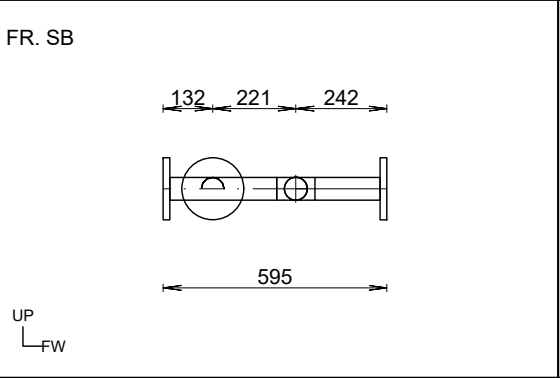
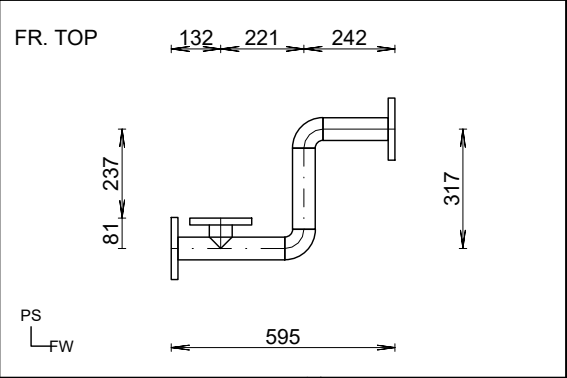
FR51 + 177
CL - 5934
TWEEN DECK - 332
Continue: BA06-001







FR51 - 286
CL - 6168
TWEEN DECK - 332
Continue: P01

Continue: BA05 - 001
FR50 + 183
CL - 6251
TWEEN DECK - 332

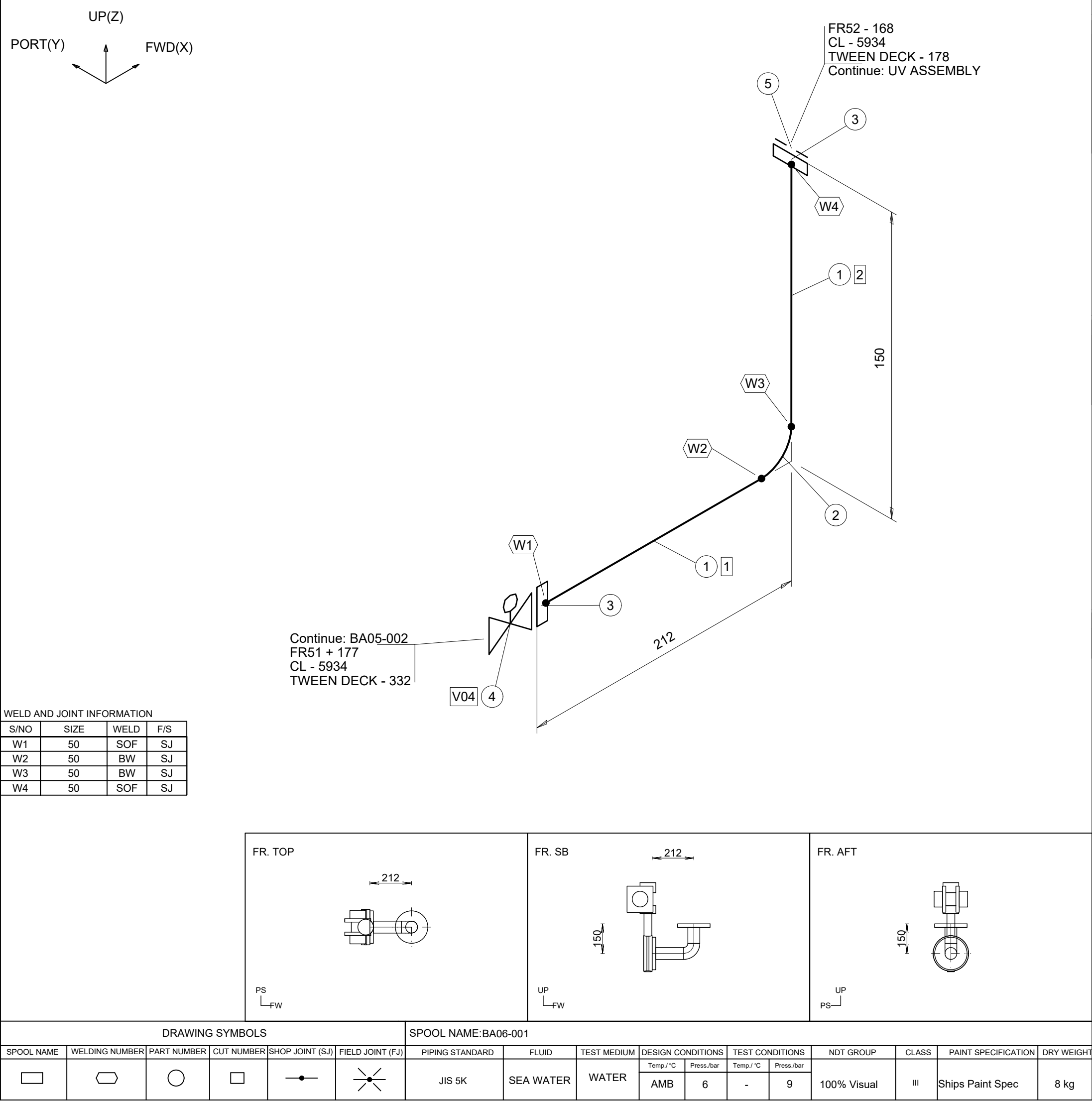
WELD AND JOINT INFORMATION


S/NO	SIZE	WELD	F/S
W1	50	SOF	SJ
W2	50	BW	SJ
W3	50	BW	SJ
W4	50	SOF	SJ
W5	50	FW	SJ
W6	50	SOF	SJ
W7	50	BW	SJ
W8	50	BW	SJ



DRAWING SYMBOLS						SPOOL NAME:BA05-002										
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 5K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	13 kg
									AMB	6	-	9				

FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.76	Pipe Seamless, BW	50A Sch40	STPG370	5.44
2	2		Elbow SR, BW 90 deg	50A Sch40	PG 370	0.46
3	3		Flange SOFF	DN50 PN10	Carbon Steel	2.47



FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		0.24	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	
5	1	Gasket, PN10, Thk 3mm		DN50	CNAF		
CUT INFORMATION							
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)	
1	Pipe Seamless, BW			50A Sch40	STPG370	151	
2	Pipe Seamless, BW			50A Sch40	STPG370	89	
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							
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 BA06							
Scale	Format	Sheet	Drawing No:			Revision No.	
N.T.S	A3	39/39	BA06			A	

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	--	

Flow Tag

FLANGE DN080
DIN EN1092.1
PN10

7,874
Ø 200

13,587
345,10

8,577
217,85

16,672
423,48

0,866
22

1,327
Ø 33,70

0,984
25

1,575
40

3,071
78

2

1

Fitting Female 1" BSP

90°

45°

2

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	
BIOUV Ultrasonic Solutions www.bio-uv.com		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 in whole or in part without the written permission of BIO-UV corporation is strictly prohibited. This document is the property of BIO-UV corporation and is not to be distributed outside the company without prior written permission.		

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

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**

DRAWING SYMBOLS						SPOOL NAME:SAMPLING PORT								
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			Temp./°C	Press./bar	Temp./°C	Press./bar		
												III		

Scale	Format	Sheet	Drawing No:	Revision No.
N.T.S	A3	39A/39	SAMPLING PORT	A