

# ARMSTRONG 나노버블 생성기

## 스케일 제거 및 억제 위한 시스템 솔루션

나노버블 생성기는 온수 시스템의 스케일을 억제하고 제거하는 것으로 입증된 솔루션입니다. 이 특허 기술은 설치가 간편하고, 운동 부품이 없으며, 유지보수나 추가 전기 입력이 필요 없고, 화학 물질을 사용하지 않습니다.

열교환기에 설치하든 온수 배관 인프라 내에 전략적으로 배치하여 전체 시스템을 처리하든, 나노버블 생성기는 스케일을 대폭 줄여 온수 시스템의 전반적인 상태를 개선하고 운영 효율성을 높여 탄소 배출량을 줄입니다.



Armstrong 나노버블 생성기 모델 ANG25



Armstrong 나노버블 생성기 모델 ANG80

설계, 재료, 무게 및 성능 지표는 대략적인 수치이며 사전 통지 없이 변경될 수 있습니다. 최신 정보는 [armstronginternational.com](http://armstronginternational.com)을 방문해 주십시오.

# ARMSTRONG 나노버블 생성기

## 작동 범위

Armstrong 나노버블 생성기 - 권장 작동 범위													
3/4" x 1-1/2"		1" x 2"		1-1/2" x 2-1/2"		2" x 3"		3" x 4"		4" x 6"		6" x 8"	
ANG20		ANG25		ANG40		ANG50		ANG80		ANG100		ANG150	
GPM	압력 강하 (psi)	GPM	압력 강하 (psi)	GPM	압력 강하 (psi)	GPM	압력 강하 (psi)	GPM	압력 강하 (psi)	GPM	압력 강하 (psi)	GPM	압력 강하 (psi)
1.1	2.5	6.7	2.5	20.9	2.7	43.0	3.5	60.0	3.0	150.0	2.8	350.0	3.2
1.4	3.1	8.3	3.1	26.5	3.4	46.0	3.9	70.0	3.4	175.0	3.3	400.0	3.7
1.7	3.8	10	3.8	32.1	4.1	50.0	4.4	80.0	3.9	200.0	3.8	450.0	4.2
1.9	4.4	11.7	4.4	35	4.5	53.0	4.6	90.0	4.4	225.0	4.2	500.0	4.6
2.2	5.0	13.3	5	37.8	5	56.0	4.8	100.0	4.9	250.0	4.7	550.0	5.1
2.5	5.6	15	5.6	39.3	5.3	60.0	5.0	110.0	5.4	275.0	5.2	600.0	5.5
2.8	6.3	16.7	6.3	40.6	5.7	63.0	5.3	120.0	5.9	300.0	5.6	650.0	6.0
3.1	6.9	17.5	6.6	42	6	66.0	5.8	130.0	6.4	325.0	6.1	700.0	6.5
3.3	7.5	18.3	6.9	43.5	6.4	70.0	6.3	140.0	6.9	350.0	6.6	750.0	6.9
3.6	8.1	20	7.5	44.9	6.8	73.0	6.5	150.0	7.4	375.0	7.0	800.0	7.4
3.7	8.4	21.7	8.1	46.3	7.1	76.0	7.0	160.0	7.9	400.0	7.5	850.0	7.8
3.9	8.8	22.5	8.4	47.7	7.5	80.0	7.5	170.0	8.4	425.0	8.0	900.0	8.3
4.0	9.0	23.3	8.8	49.1	8.1	83.0	7.7	180.0	8.9	450.0	8.4	950.0	8.8
4.2	9.4	25	9.4	52	8.2	86.0	8.2	190.0	9.4	475.0	8.9	1000.0	9.2
4.4	10.0	25.8	9.7	54.9	8.3	90.0	8.8	200.0	9.8	500.0	9.4	1050.0	9.7
4.6	10.4	26.7	10	57.7	9.3	93.0	9.4	210.0	10.3	525.0	9.8	1100.0	10.2
4.7	10.6	28.3	10.6	60.5	10.4	96.0	10.3	220.0	10.8	550.0	10.3	1150.0	10.6
5.0	11.3	30	11.3	63.4	11.4	100.0	12.5	230.0	11.3	575.0	10.8	1200.0	11.1

## 기술 사양

일반		
연결 사이즈 옵션	3/4" NPT 암나사	
	1" NPT 암나사	
	1-1/2" NPT 암나사	
	2" 150lb 플랜지형	
	3" 150lb 플랜지형	
	4" 150lb 플랜지형	
	6" 150lb 플랜지형	
재질	ANG 유닛	Type 316 스테인리스 스틸
	ANG 측류	스테인리스 스틸 모델에 한함: 배관 부품에는 Schedule 10 및 Schedule 40 스테인리스 스틸이 사용됩니다.
온도		
최대 작동 온도	230°F(110°C)	
압력		
최대 작동 압력	150 psi(15 bar)	
최대 허용 압력	200 psi(13.8 bar)	
모델 전체의 압력 강하	권장 최대 압력 강하: 15 psi(1 bar)	권장 최소 압력 강하: 5 psi(0.35 bar)
인증 및 규정 준수		
NSF / ANSI 61	규정 준수	

설계, 재료, 무게 및 성능 지표는 대략적인 수치이며 사전 통지 없이 변경될 수 있습니다. 최신 정보는 [armstronginternational.com](http://armstronginternational.com)을 방문해 주십시오.



# ARMSTRONG 나노버블 생성기

## 서면 사양

범주: 용수처리 장비

유형: 나노버블 생성기

모델: ANG

### 1.0 일반

- 1.1 나노버블 생성기는 한쪽 끝에 흡입구가, 반대쪽 끝에 배출구가 있으며, 흡입구와 배출구 사이에 조절 장치가 있어야 합니다.
- 1.2 나노버블 생성기는 측류식 또는 인라인식 설치를 위해 나사식 또는 플랜지식 연결 방식으로 제작되어야 합니다.
- 1.3 나노버블 생성기는 316L 스테인리스 스틸로 제작되어야 합니다.
- 1.4 나노버블 생성기는 100nm 크기의 나노버블을 생성할 수 있어야 합니다.
- 1.5 나노버블 생성기는 정적 혼합기로 작동해야 하며 전기 부품을 필요로 하지 않아야 합니다.

### 2.0 나노버블 생성기는 다음의 작동 사양을 갖춰야 합니다.

- 2.1 모델별 규격 기준에 따른 유량: 1~1,150 GPM(4,353 LPM)
- 2.2 최대 15 psig(1 barg)의 압력 강하
- 2.3 작동 수압: 5~150 psig(0.35~10.3 barg)
- 2.4 최대 허용 수압: 200 psig(13.4 barg)
- 2.5 2.5 필요한 속도: 2~15 FPS(0.6~4.5 m/s)

### 3.0 나노버블 생성기는 ASME Section IV B31.1, B31.3에 따라 제작됩니다.

### 4.0 나노버블 생성기에는 5년 보증이 적용됩니다.

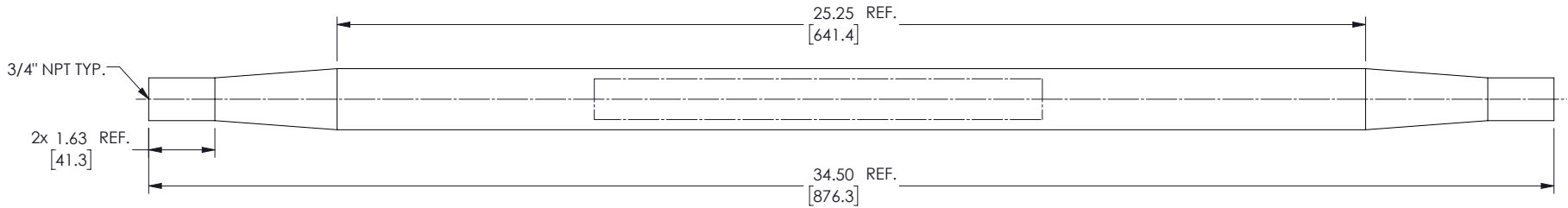
설계, 재료, 무게 및 성능 지표는 대략적인 수치이며 사전 통지 없이 변경될 수 있습니다. 최신 정보는 [armstronginternational.com](http://armstronginternational.com)을 방문해 주십시오.





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- APPROVED, PROCEED WITH FABRICATION
- APPROVED AS NOTED, PROCEED WITH FABRICATION IN ACCORDANCE WITH COMMENTS
- DISAPPROVED, DO NOT FABRICATE



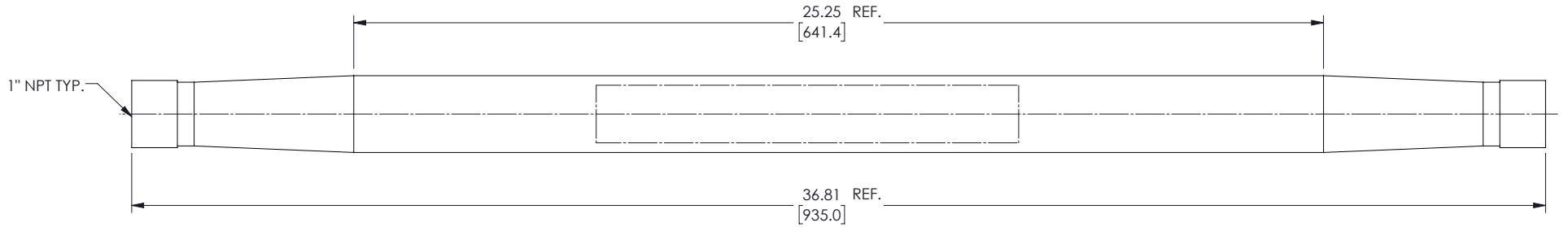
NOTES:  
1. MAX. WATER PRESSURE 150 PSI [10.3].

 DO NOT SCALE DRAWING TOLERANCES UNLESS OTHERWISE SPECIFIED DIMENSIONING ENGLISH [mm]			<b>ARMSTRONG INTERNATIONAL</b> Copyright © 2010 ARMSTRONG INTERNATIONAL, INC.																
			<b>ANG20 3/4 NPT X 1-1/2 OD SS 316</b>																
FRACTIONAL ± 1/64 ANGULAR: ± 2		<table border="1"> <tr> <th>NAME</th> <th>DATE</th> </tr> <tr> <td>Ross Pulifer</td> <td>12/14/2023</td> </tr> </table>	NAME	DATE	Ross Pulifer	12/14/2023	MATERIAL												
NAME	DATE																		
Ross Pulifer	12/14/2023																		
<table border="1"> <tr> <th>DECIMAL</th> <th>.XXXX ± .0005</th> <th>----</th> <th>MM</th> </tr> <tr> <td></td> <td>.XXX ± .005</td> <td>.10</td> <td></td> </tr> <tr> <td></td> <td>.XX ± .015</td> <td>.10</td> <td></td> </tr> <tr> <td></td> <td>.X</td> <td>.3</td> <td></td> </tr> </table>		DECIMAL	.XXXX ± .0005	----	MM		.XXX ± .005	.10			.XX ± .015	.10			.X	.3		DRAWN	SHEET 1 OF 1
DECIMAL	.XXXX ± .0005	----	MM																
	.XXX ± .005	.10																	
	.XX ± .015	.10																	
	.X	.3																	
RELEASED		MATERIAL	CN85171	REV A DWG. SALES															



# APPROVAL

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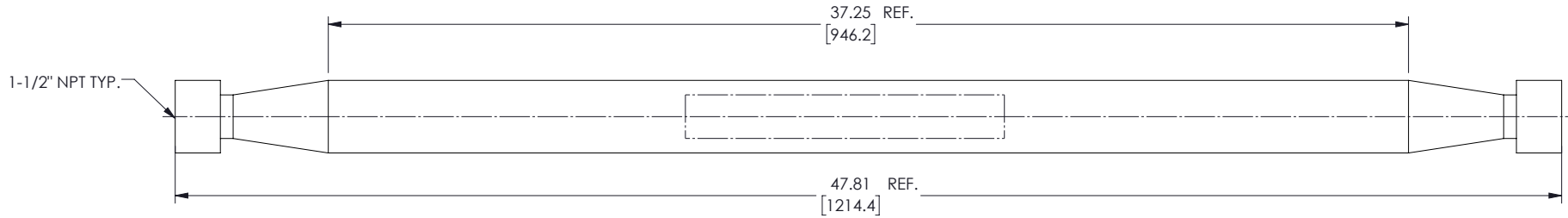
NOTES:  
1. MAX. WATER PRESSURE 150 PSI [10.3].

				ARMSTRONG INTERNATIONAL Copyright © 2010 ARMSTRONG INTERNATIONAL, INC.	
DO NOT SCALE DRAWING TOLERANCES UNLESS OTHERWISE SPECIFIED DIMENSIONING ENGLISH [mm]				ANG25 1 NPT X 2 OD SS 316	
FRACTIONAL ± 1/64 ANGULAR: ± 2		NAME Ross Pulifer	DATE 12/14/2023	MATERIAL	
DECIMAL .XXX ± .005 .10 .XX ± .015 .10 .X ± .3		DRAWN	RELEASED	CN85171	SHEET 1 OF 1 REV. DWG. SALES

# APPROVAL

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

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- APPROVED AS NOTED, PROCEED WITH FABRICATION IN ACCORDANCE WITH COMMENTS
- DISAPPROVED, DO NOT FABRICATE



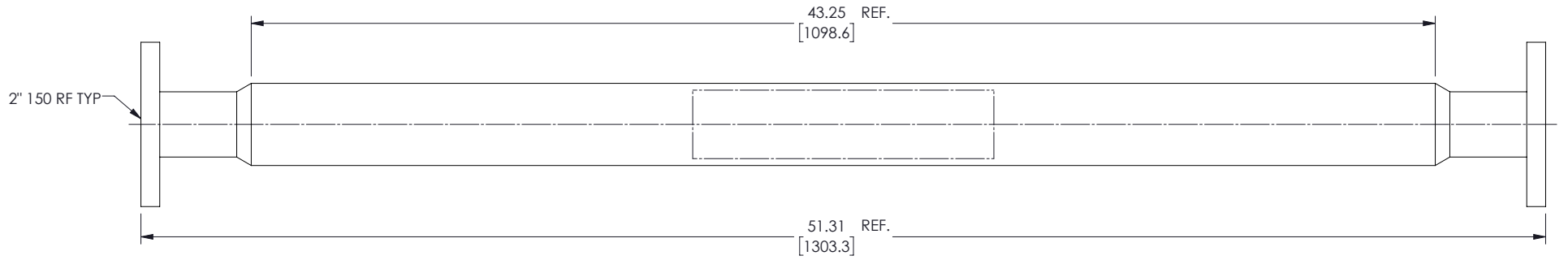
NOTES:  
1. MAX. WATER PRESSURE 150 PSI [10.3].

			<b>ARMSTRONG INTERNATIONAL</b> Copyright © 2010 ARMSTRONG INTERNATIONAL, INC.	
DO NOT SCALE DRAWING TOLERANCES UNLESS OTHERWISE SPECIFIED			<b>ANG40 1-1/2 NPT X 2-1/2 OD SS 316</b>	
DIMENSIONING ENGLISH [mm]			MATERIAL	
FRACTIONAL ± 1/64 ANGULAR: ± 2			SHEET 1 OF 1	
DECIMAL .XXXX ± .0005 .XXX ± .005 .010 .XX ± .015 .10 .X ± .3		NAME Ross Pulifer	DATE 12/14/2023	REVA _____
		DRAWN	1/5/2024	DWG. SALES



# APPROVAL

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

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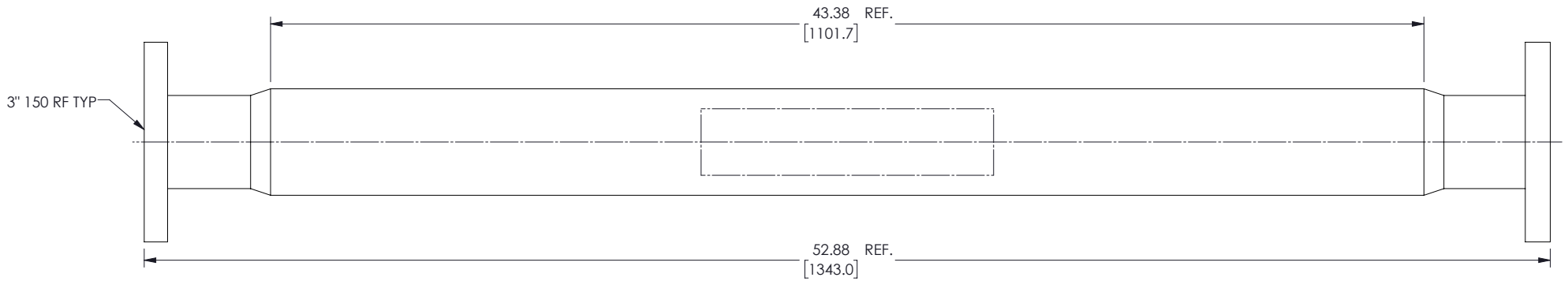
NOTES:  
1. MAX. WATER PRESSURE 150 PSI [10.3].

 DO NOT SCALE DRAWING TOLERANCES UNLESS OTHERWISE SPECIFIED DIMENSIONING ENGLISH [mm]				ARMSTRONG INTERNATIONAL Copyright © 2010 ARMSTRONG INTERNATIONAL, INC.	
				ANG50 2 150 RF X 3 OD SS 316	
FRACTIONAL ± 1/64 ANGULAR: ± 2		NAME Ross Pulifer		DATE 12/14/2023	
DECIMAL .XXX ± .005 .XX ± .015 .X ± .3		MATERIAL CN85171		SHEET 1 OF 1	
RELEASED		REV A		DWG. SALES	



# APPROVAL

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

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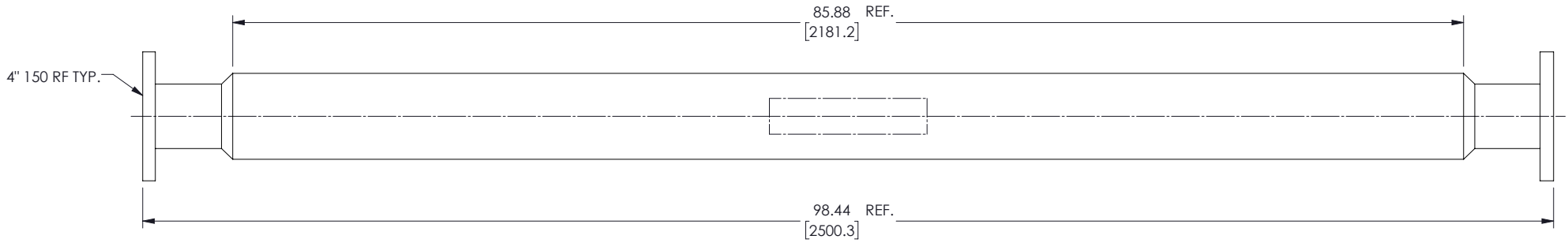
NOTES:  
1. MAX. WATER PRESSURE 150 PSI [10.3].

 DO NOT SCALE DRAWING TOLERANCES UNLESS OTHERWISE SPECIFIED DIMENSIONING ENGLISH [mm]				ARMSTRONG INTERNATIONAL Copyright © 2010 ARMSTRONG INTERNATIONAL, INC.	
				ANG80 3 150 RF X 4 OD SS 316	
FRACTIONAL ± 1/64 ANGULAR: ± 2		NAME Ross Pulifer		DATE 12/14/2023	
DECIMAL .XXX ± .005 .XX ± .015 .X ± .3		MATERIAL CN85171		SHEET 1 OF 1 REV. A DWG. SALES	



# APPROVAL

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

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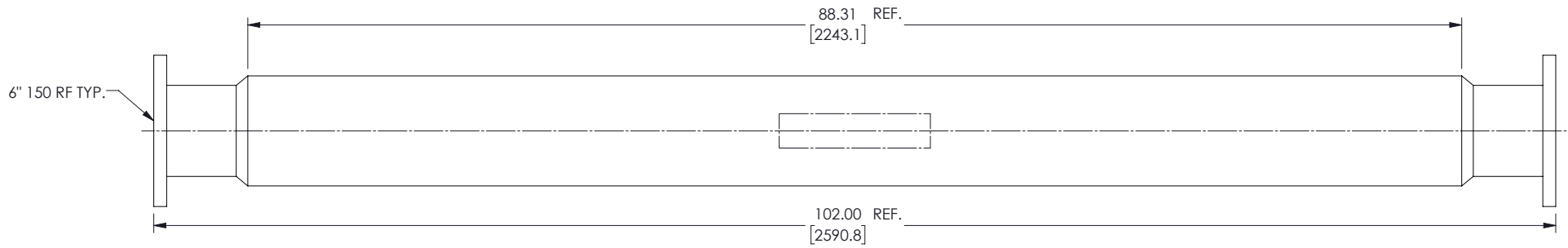
NOTES:  
1. MAX. WATER PRESSURE 150 PSI [10.3].

				ARMSTRONG INTERNATIONAL Copyright © 2010 ARMSTRONG INTERNATIONAL, INC.	
DO NOT SCALE DRAWING TOLERANCES UNLESS OTHERWISE SPECIFIED				ANG100 4 150 RF X 6 OD SS 316	
DIMENSIONING ENGLISH [mm]		NAME Ross Pulifer		DATE 12/14/2023	
FRACTIONAL ± 1/64 ANGULAR: ± 2		MATERIAL CN85171		SHEET 1 OF 1	
DECIMAL .XXX ± .005 .XX ± .015 .X ± .3		RELEASED		REV. A DWG. SALES	



# APPROVAL

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

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NOTES:  
1. MAX. WATER PRESSURE 150 PSI [10.3].

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DIMENSIONING ENGLISH [mm]		NAME Ross Pulifer		DATE 12/14/2023	
FRACTIONAL ± 1/64 ANGULAR: ± 2		MATERIAL CN85171		SHEET 1 OF 1	
DECIMAL .XXXX ± .0005 .XXX ± .005 .010 .XX ± .015 .10 .X ± .3		RELEASED		REV. A DWG. SALES	

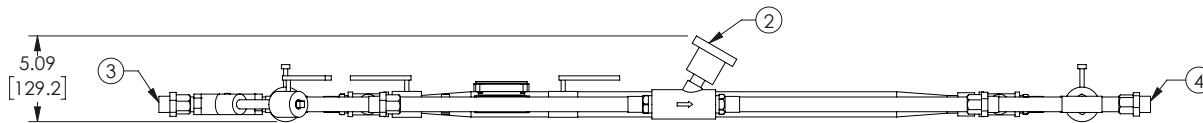
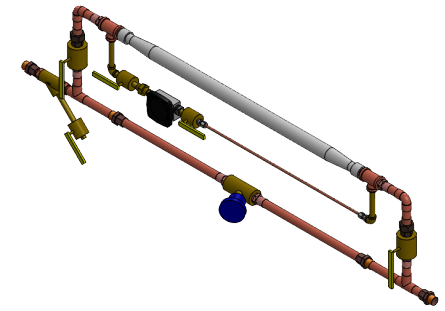
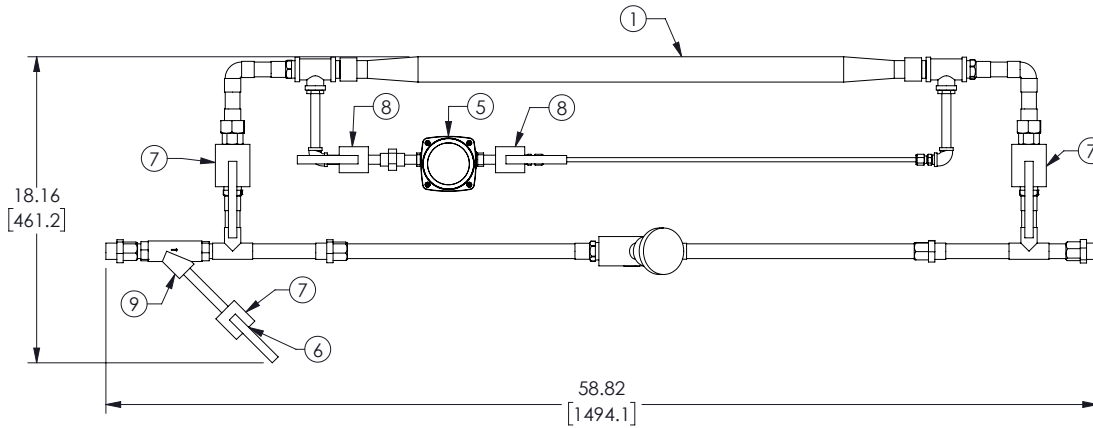
# APPROVAL

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

APPROVED, PROCEED WITH FABRICATION

APPROVED AS NOTED, PROCEED WITH FABRICATION IN ACCORDANCE WITH COMMENTS

DISAPPROVED, DO NOT FABRICATE



<b>PROJECT NAME:</b>		
<b>TAG:</b>		
ITEM	DESCRIPTION	CONNECTION
1	ANG20 (1)	3/4" NPT
2	BALANCE VALVE (1)	3/4" NPT
3	WATER INLET	3/4" SWT
4	WATER OUTLET	3/4" SWT
5	DIFFERENTIAL PRESSURE GAUGE (1)	1/4" NPT
6	BLOWDOWN (1)	1/4" NPT
7	BALL VALVE (2) & (1)	3/4" & 1/4" NPT
8	BALL VALVE (2)	1/4" NPT
9	STRAINER (1)	3/4" NPT
<b>ITEM</b>		<b>MATERIAL</b>
PIPING		COPPER TYPE "L"

**NOTES:**

1. ALL DIMENSIONS +/-1[25] UNLESS OTHERWISE SPECIFIED
2. COMPLETE ASSEMBLY LEAD FREE COMPLIANT - THE WETTED SURFACE OF THIS PRODUCT CONTACTED BY CONSUMABLE WATER CONTAINS LESS THAN ONE QUARTER OF ONE PERCENT (0.25%) OF LEAD BY WEIGHT.
3. REFERENCE ARMSTRONG PART NUMBER: D195377

DO NOT SCALE DRAWING TOLERANCES UNLESS OTHERWISE SPECIFIED	
DIMENSIONING ENGLISH [mm]	
FRACTIONAL ± 1/64	ANGULAR: ± 2
DECIMAL .XXXX ± .0005	.XXX ± .005 .010
.XX ± .015	.10
.X	.3

NAME	DATE
ROSS PULFIER	06/26/2024
RELEASED	4/22/2025

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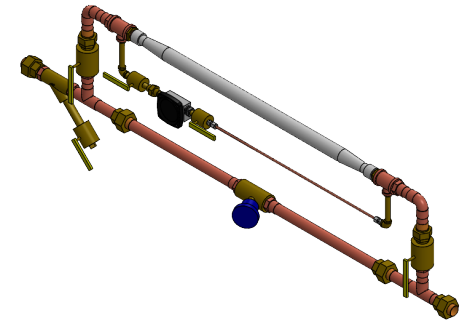
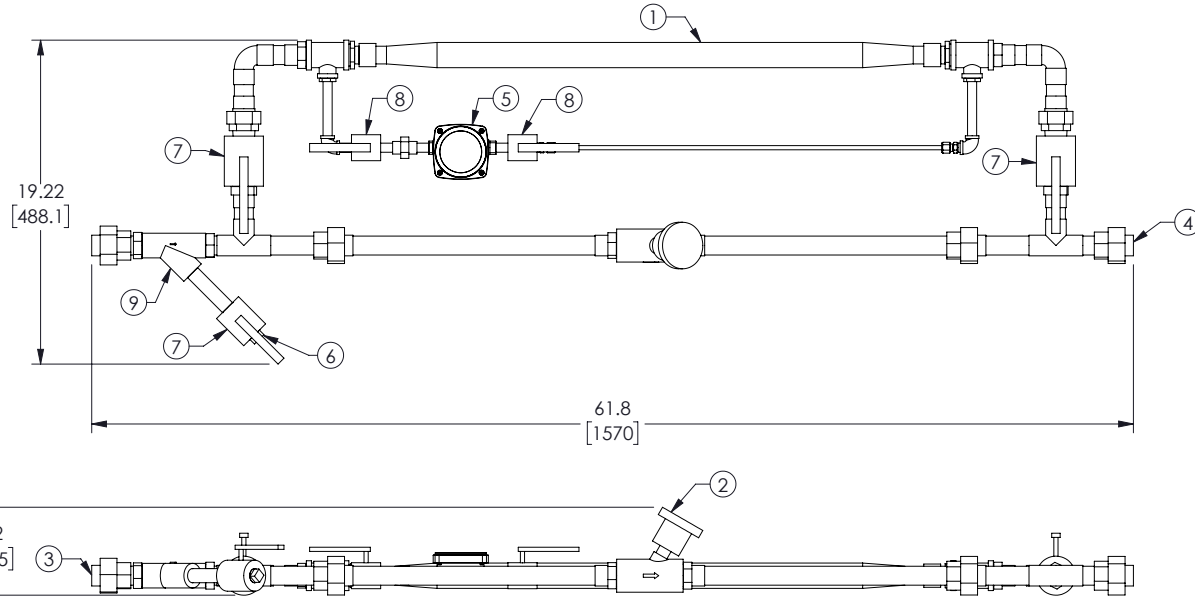
ANG20PP-CPR 3/4 CPR PREPIPED WITH BYPASS

MATERIAL	SHEET 1 OF 1
REV 0	DWG. SALES

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- DISAPPROVED, DO NOT FABRICATE



<b>PROJECT NAME:</b>		
<b>TAG:</b>		
ITEM	DESCRIPTION	CONNECTION
1	ANG20 (1)	3/4" NPT
2	BALANCE VALVE (1)	1" NPT
3	WATER INLET	1" SWT
4	WATER OUTLET	1" SWT
5	DIFFERENTIAL PRESSURE GAUGE (1)	1/4" NPT
6	BLOWDOWN (1)	1/2" NPT
7	BALL VALVE (2) & (1)	1" NPT & 1/2" NPT
8	BALL VALVE (2)	1/4" NPT
9	STRAINER (1)	1" NPT
	<b>ITEM</b>	<b>MATERIAL</b>
	PIPING	COPPER TYPE "L"

**NOTES:**

- ALL DIMENSIONS +/-1[25] UNLESS OTHERWISE SPECIFIED
- COMPLETE ASSEMBLY LEAD FREE COMPLIANT - THE WETTED SURFACE OF THIS PRODUCT CONTACTED BY CONSUMABLE WATER CONTAINS LESS THAN ONE QUARTER OF ONE PERCENT (0.25%) OF LEAD BY WEIGHT.
- REFERENCE ARMSTRONG PART NUMBER: D195378

DO NOT SCALE DRAWING TOLERANCES UNLESS OTHERWISE SPECIFIED	
DIMENSIONING ENGLISH [mm]	
FRACTIONAL ± 1/64	
ANGULAR: ± 2	
DECIMAL	.XXXX ± .0005
	.XXX ± .005 .10
	.XX ± .015 .10
	.X ± .3

NAME	DATE
DRAWN Ross Pulifer	06/28/2024
RELEASED	12/19/2024

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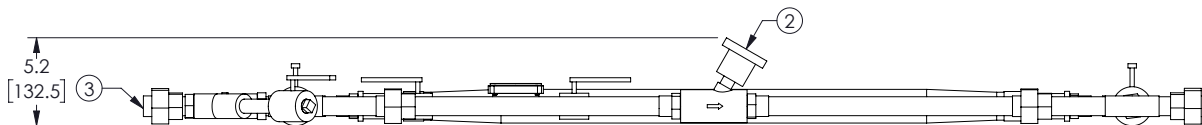
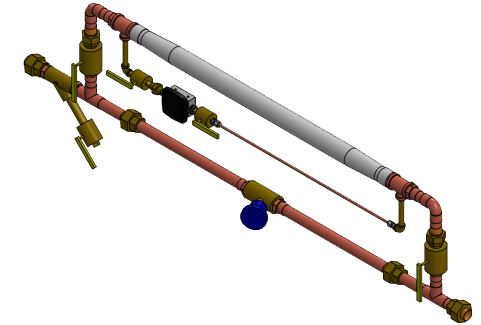
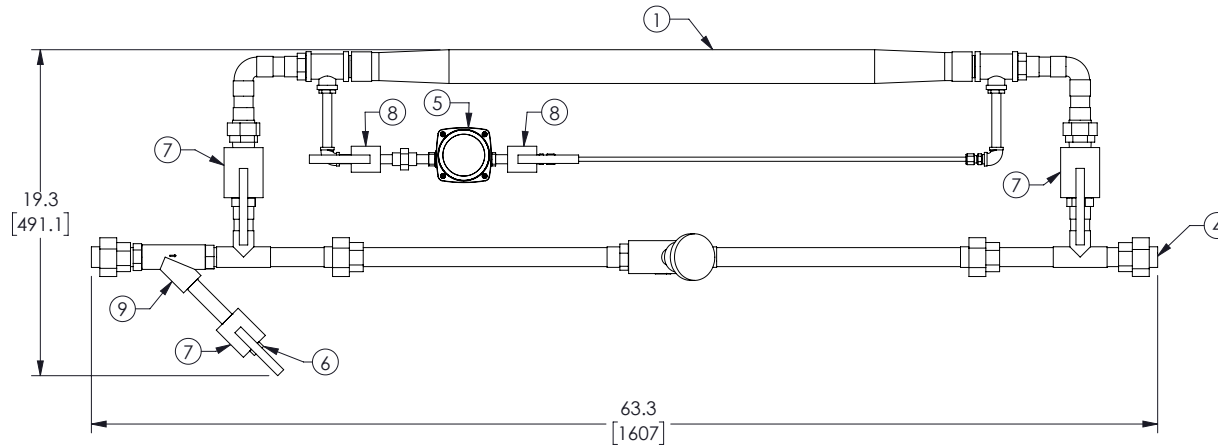
ANG20PP-CPR 1 CPR PREPPED WITH BYPASS

MATERIAL	SHEET 1 OF 1
REV0	DWG. SALES

# APPROVAL

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

- APPROVED, PROCEED WITH FABRICATION
- APPROVED AS NOTED, PROCEED WITH FABRICATION IN ACCORDANCE WITH COMMENTS
- DISAPPROVED, DO NOT FABRICATE



PROJECT NAME:		
TAG:		
ITEM	DESCRIPTION	CONNECTION
1	ANG25 (1)	1" NPT
2	BALANCE VALVE (1)	1" NPT
3	WATER INLET	1" SWT
4	WATER OUTLET	1" SWT
5	DIFFERENTIAL PRESSURE GAUGE (1)	1/4" NPT
6	BLOWDOWN (1)	1/2" NPT
7	BALL VALVE (2) & (1)	1" NPT & 1/2" NPT
8	BALL VALVE (2)	1/4" NPT
9	STRAINER (1)	1" NPT
	<b>ITEM</b>	<b>MATERIAL</b>
	PIPING	COPPER TYPE "L"

**NOTES:**

- ALL DIMENSIONS +/-1[25] UNLESS OTHERWISE SPECIFIED
- COMPLETE ASSEMBLY LEAD FREE COMPLIANT - THE WETTED SURFACE OF THIS PRODUCT CONTACTED BY CONSUMABLE WATER CONTAINS LESS THAN ONE QUARTER OF ONE PERCENT (0.25%) OF LEAD BY WEIGHT.
- REFERENCE ARMSTRONG PART NUMBER: D195379

DO NOT SCALE DRAWING	
TOLERANCES UNLESS OTHERWISE SPECIFIED	
DIMENSIONING ENGLISH [mm]	
FRACTIONAL	± 1/64
ANGULAR:	± 2
DECIMAL	.XXXX ± .0005
	.XXX ± .005 .10
	.XX ± .015 .10
	.X ± .3

NAME	DATE
DRAWN	Ross Pulifer
RELEASED	4/22/2025

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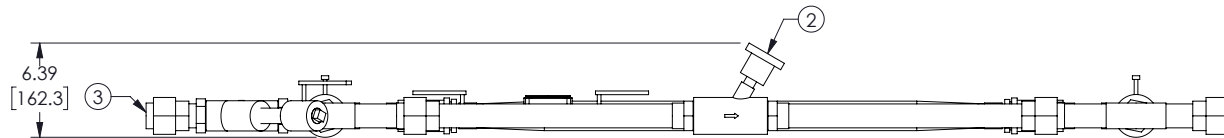
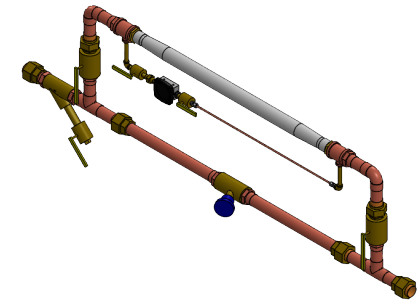
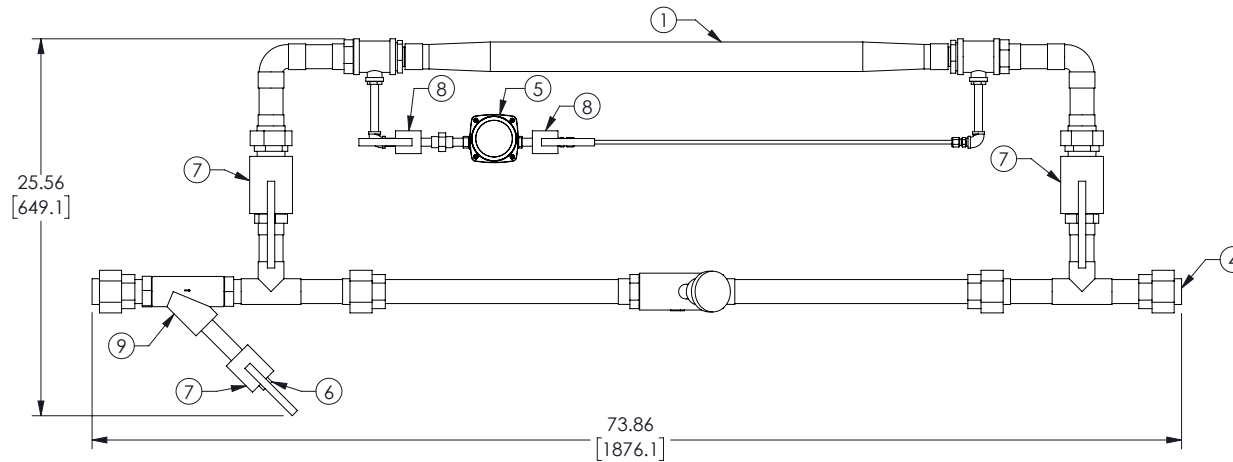
ANG25PP-CPR 1 CPR PREPARED WITH BYPASS

MATERIAL	SHEET 1 OF 1
REV 0	DWG. SALES

# APPROVAL

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

- APPROVED, PROCEED WITH FABRICATION
- APPROVED AS NOTED, PROCEED WITH FABRICATION IN ACCORDANCE WITH COMMENTS
- DISAPPROVED, DO NOT FABRICATE



<b>PROJECT NAME:</b>		
<b>TAG:</b>		
ITEM	DESCRIPTION	CONNECTION
1	ANG25 (1)	1" NPT
2	BALANCE VALVE (1)	1-1/2" NPT
3	WATER INLET	1-1/2" SWT
4	WATER OUTLET	1-1/2" SWT
5	DIFFERENTIAL PRESSURE GAUGE (1)	1/4" NPT
6	BLOWDOWN (1)	3/4" NPT
7	BALL VALVE (2) & (1)	1-1/2" NPT & 3/4" NPT
8	BALL VALVE (2)	1/4" NPT
9	STRAINER (1)	1-1/2" NPT
<b>ITEM</b>		<b>MATERIAL</b>
PIPING		COPPER TYPE "L"

**NOTES:**

- ALL DIMENSIONS +/-1[25] UNLESS OTHERWISE SPECIFIED
- COMPLETE ASSEMBLY LEAD FREE COMPLIANT - THE WETTED SURFACE OF THIS PRODUCT CONTACTED BY CONSUMABLE WATER CONTAINS LESS THAN ONE QUARTER OF ONE PERCENT (0.25%) OF LEAD BY WEIGHT.
- REFERENCE ARMSTRONG PART NUMBER: D195381

DO NOT SCALE DRAWING TOLERANCES UNLESS OTHERWISE SPECIFIED	
DIMENSIONING ENGLISH [mm]	
FRACTIONAL	± 1/64
ANGULAR:	± 2
DECIMAL	.XXXX ± .0005
	.XXX ± .005 .010
	.XX ± .015 .10
	.X ± .3

NAME	DATE
ROSS PULFIER	07/02/2024
RELEASED	4/22/2025

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ANG25PP-CPR 1-1/2 CPR PREPARED WITH BYPASS

MATERIAL	SHEET 1 OF 1
REV0	DWG. SALES

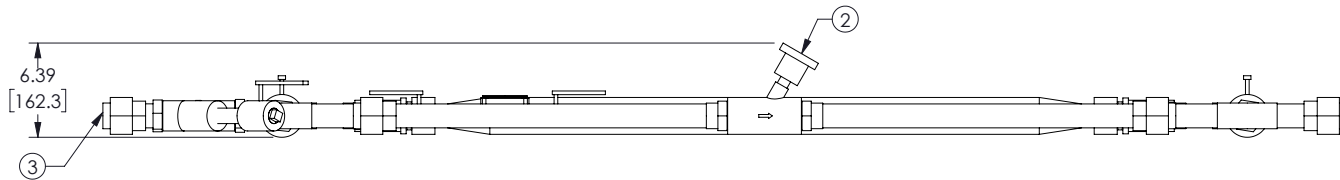
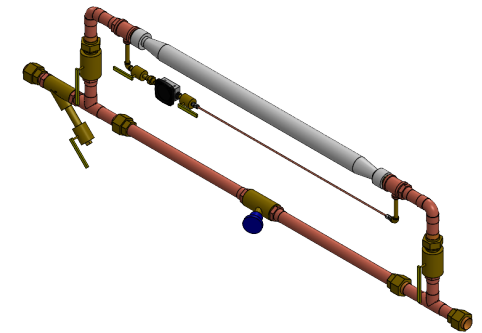
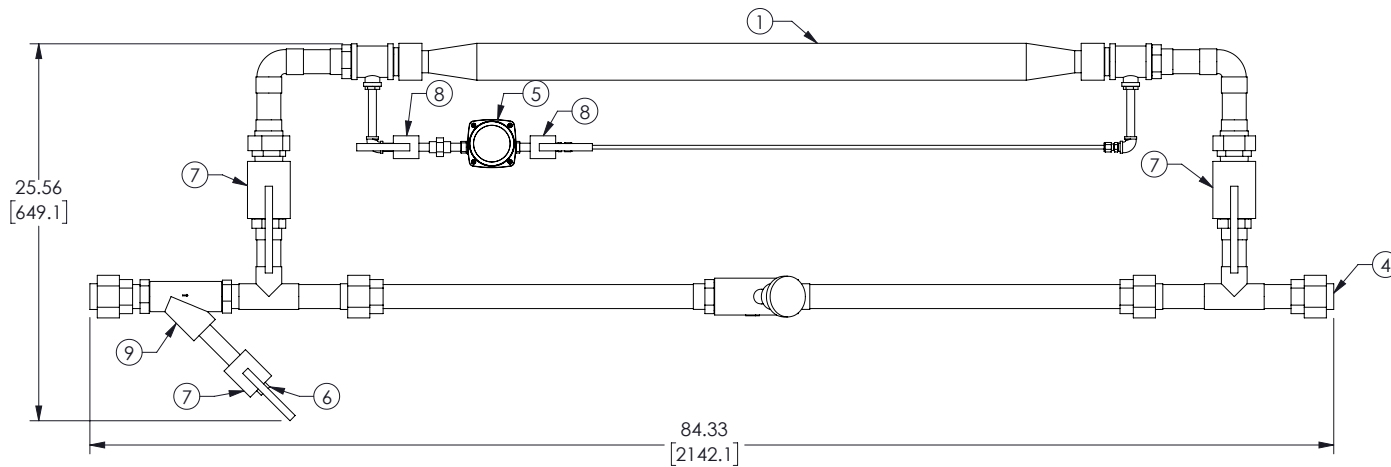
# APPROVAL

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

APPROVED, PROCEED WITH FABRICATION

APPROVED AS NOTED, PROCEED WITH FABRICATION IN ACCORDANCE WITH COMMENTS

DISAPPROVED, DO NOT FABRICATE



<b>PROJECT NAME:</b>		
<b>TAG:</b>		
<b>ITEM</b>	<b>DESCRIPTION</b>	<b>CONNECTION</b>
1	ANG40 (1)	1-1/2" NPT
2	BALANCE VALVE (1)	1-1/2" NPT
3	WATER INLET	1-1/2" SWT
4	WATER OUTLET	1-1/2" SWT
5	DIFFERENTIAL PRESSURE GAUGE (1)	1/4" NPT
6	BLOWDOWN (1)	3/4" NPT
7	BALL VALVE (2) & (1)	1-1/2" NPT & 3/4" NPT
8	BALL VALVE (2)	1/4" NPT
9	STRAINER (1)	1-1/2" NPT
<b>ITEM</b>	<b>MATERIAL</b>	
	PIPING	COPPER TYPE "L"

**NOTES:**

1. ALL DIMENSIONS +/-1[25] UNLESS OTHERWISE SPECIFIED
2. COMPLETE ASSEMBLY LEAD FREE COMPLIANT - THE WETTED SURFACE OF THIS PRODUCT CONTACTED BY CONSUMABLE WATER CONTAINS LESS THAN ONE QUARTER OF ONE PERCENT (0.25%) OF LEAD BY WEIGHT.
3. REFERENCE ARMSTRONG PART NUMBER: D201146

DO NOT SCALE DRAWING TOLERANCES UNLESS OTHERWISE SPECIFIED	
DIMENSIONING ENGLISH [mm]	
FRACTIONAL ± 1/64	
ANGULAR: ± 2	
DECIMAL	.XXXX ± .0005
	.XXX ± .005 .010
	.XX ± .015 .10
	.X ± .3

NAME	DATE
DRAWN Ross Pulifer	11/08/2024
RELEASED	12/19/2024

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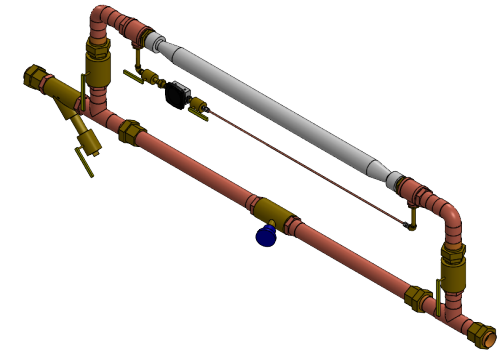
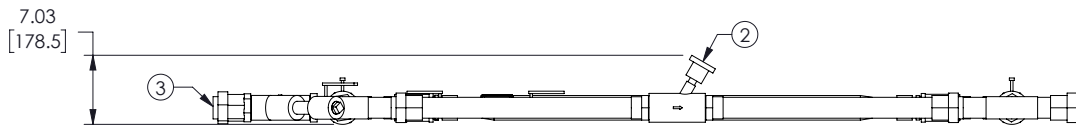
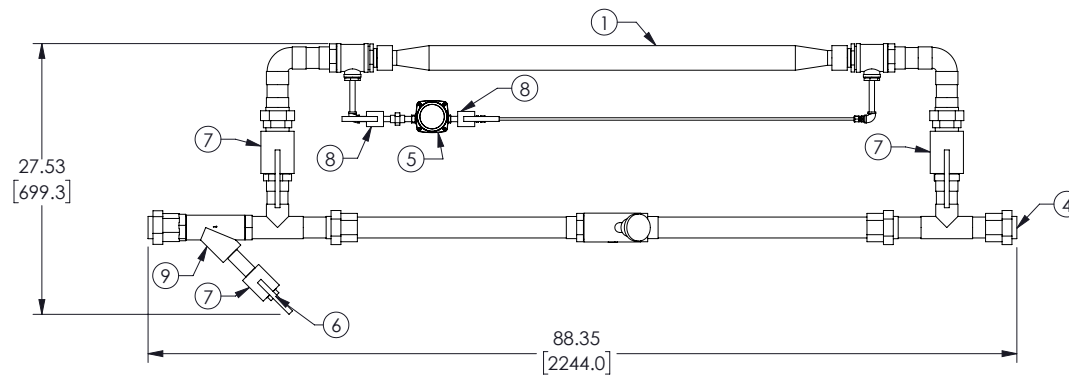
ANG40PP-CPR 1-1/2 CPR PREPARED WITH BYPASS

MATERIAL	SHEET 1 OF 1
REV0 DWG.	SALES

# APPROVAL

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

- APPROVED, PROCEED WITH FABRICATION
- APPROVED AS NOTED, PROCEED WITH FABRICATION IN ACCORDANCE WITH COMMENTS
- DISAPPROVED, DO NOT FABRICATE



<b>PROJECT NAME:</b>		
<b>TAG:</b>		
ITEM	DESCRIPTION	CONNECTION
1	ANG40 (1)	1-1/2" NPT
2	BALANCE VALVE (1)	2" NPT
3	WATER INLET	2" SWT
4	WATER OUTLET	2" SWT
5	DIFFERENTIAL PRESSURE GAUGE (1)	1/4" NPT
6	BLOWDOWN (1)	1" NPT
7	BALL VALVE (2) & (1)	2" NPT & 1" NPT
8	BALL VALVE (2)	1/4" NPT
9	STRAINER (1)	2" NPT
	<b>ITEM</b>	<b>MATERIAL</b>
	PIPING	COPPER TYPE "L"

**NOTES:**

- ALL DIMENSIONS +/-1[25] UNLESS OTHERWISE SPECIFIED
- COMPLETE ASSEMBLY LEAD FREE COMPLIANT - THE WETTED SURFACE OF THIS PRODUCT CONTACTED BY CONSUMABLE WATER CONTAINS LESS THAN ONE QUARTER OF ONE PERCENT (0.25%) OF LEAD BY WEIGHT.
- REFERENCE ARMSTRONG PART NUMBER: D201147

DO NOT SCALE DRAWING TOLERANCES UNLESS OTHERWISE SPECIFIED		
DIMENSIONING ENGLISH [mm]		
FRACTIONAL ± 1/64		
ANGULAR: ± 2		
DECIMAL	.XXXX ± .0005	----
	.XXX ± .005	.10
	.XX ± .015	.10
	.X	.3

NAME	DATE
ROSS PULFIR	11/08/2024
RELEASED	12/19/2024

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ANG40PP-CPR 2 CPR PREPARED WITH BYPASS

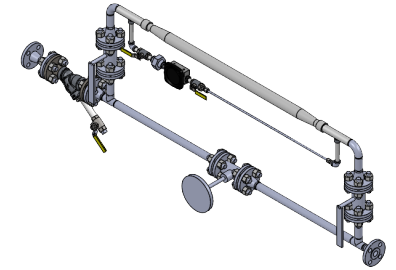
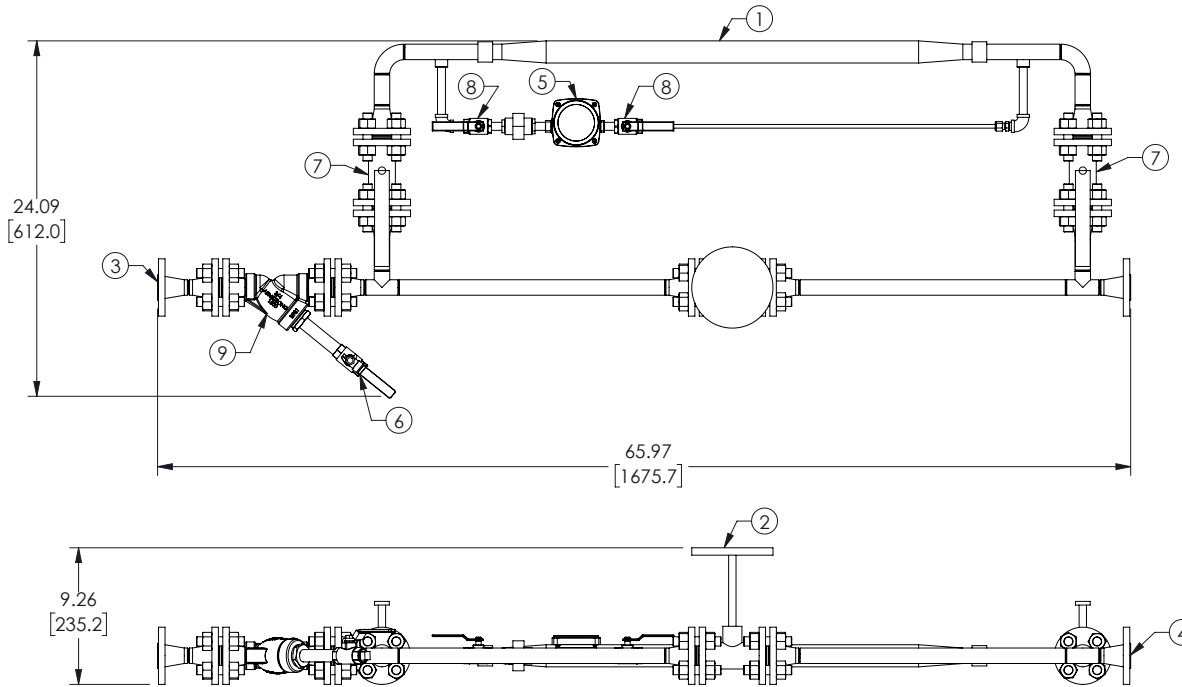
MATERIAL	SHEET 1 OF 1
REV0	DWG. SALES



# APPROVAL

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

- APPROVED, PROCEED WITH FABRICATION
- APPROVED AS NOTED, PROCEED WITH FABRICATION IN ACCORDANCE WITH COMMENTS
- DISAPPROVED, DO NOT FABRICATE



<b>PROJECT NAME:</b>		
<b>TAG:</b>		
ITEM	DESCRIPTION	CONNECTION
1	ANG20 (1)	3/4" NPT
2	GLOBE VALVE (1)	3/4" 150RF
3	WATER INLET	3/4" 150RF
4	WATER OUTLET	3/4" 150RF
5	DIFFERENTIAL PRESSURE GAUGE (1)	1/4" NPT
6	BLOWDOWN (1)	1/2" NPT
7	BALL VALVE (2)	3/4" 150RF
8	BALL VALVE (2)	1/4" NPT
9	STRAINER (1)	3/4" 150RF
<b>ITEM</b>		<b>MATERIAL</b>
PIPING		SS TP316L

**NOTES:**

- ALL DIMENSIONS +/-1[25] UNLESS OTHERWISE SPECIFIED
- COMPLETE ASSEMBLY LEAD FREE COMPLIANT - THE WETTED SURFACE OF THIS PRODUCT CONTACTED BY CONSUMABLE WATER CONTAINS LESS THAN ONE QUARTER OF ONE PERCENT (0.25%) OF LEAD BY WEIGHT.
- REFERENCE ARMSTRONG PART NUMBER: D195384
- GLOBE VALVE TO BE ORIENTATED SUCH THAT INCOMING FLOW IS UNDER THE SEAT

DO NOT SCALE DRAWING	
TOLERANCES UNLESS OTHERWISE SPECIFIED	
DIMENSIONING ENGLISH [mm]	
FRACTIONAL ± 1/64	
ANGULAR: ± 2	
DECIMAL	.XXXX ± .0005
	.XXX ± .005 .10
	.XX ± .015 .10
	.X ± .3

NAME	DATE
DRAWN Ross Pulifer	07/08/2024
RELEASED	12/18/2024

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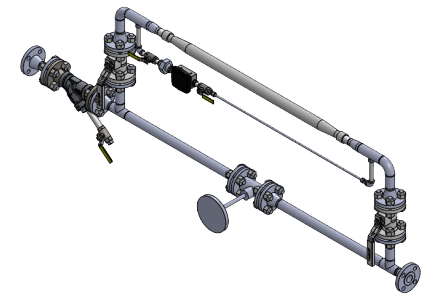
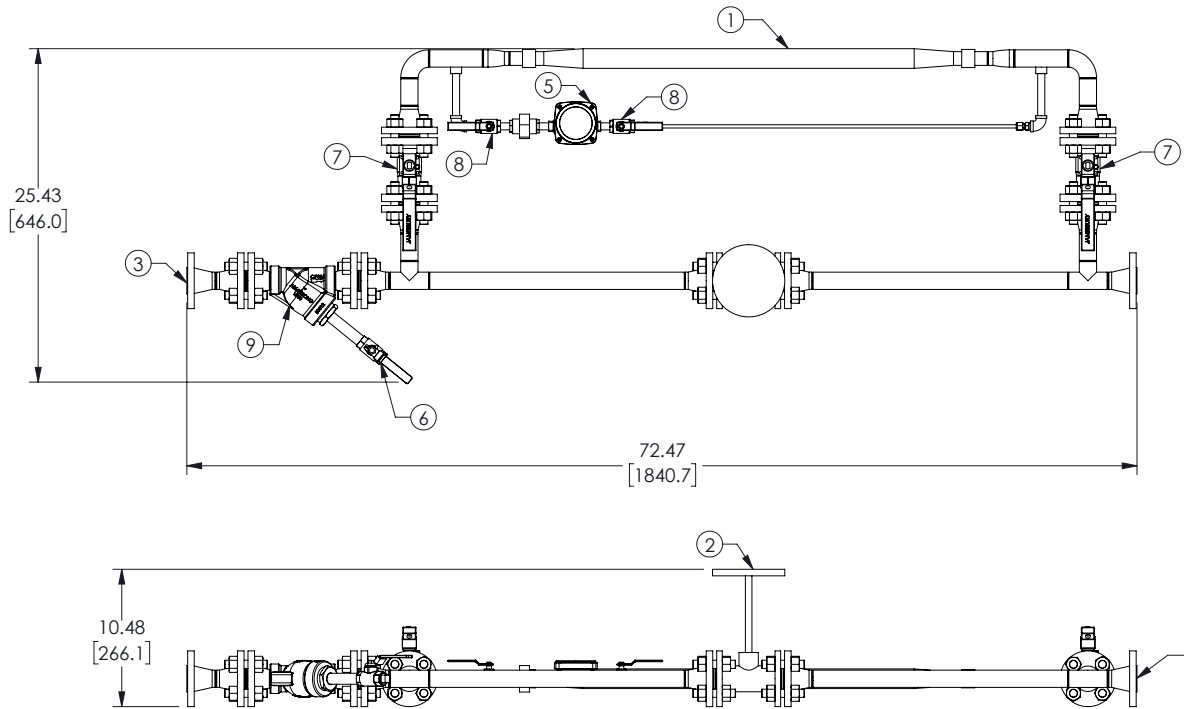
ANG20PP-SS 3/4 SS PREPIPED WITH BYPASS

MATERIAL	SHEET 1 OF 1
CN90513	REV0 DWG. SALES

# APPROVAL

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

- APPROVED, PROCEED WITH FABRICATION
- APPROVED AS NOTED, PROCEED WITH FABRICATION IN ACCORDANCE WITH COMMENTS
- DISAPPROVED, DO NOT FABRICATE



<b>PROJECT NAME:</b>		
<b>TAG:</b>		
ITEM	DESCRIPTION	CONNECTION
1	ANG20 (1)	3/4" NPT
2	GLOBE VALVE (1)	1" 150RF
3	WATER INLET	1" 150RF
4	WATER OUTLET	1" 150RF
5	DIFFERENTIAL PRESSURE GAUGE (1)	1/4" NPT
6	BLOWDOWN (1)	1/2" NPT
7	BALL VALVE (2)	1" 150RF
8	BALL VALVE (2)	1/4" NPT
9	STRAINER (1)	1" 150RF
<b>ITEM</b>		<b>MATERIAL</b>
PIPING		SS TP316L

**NOTES:**

- ALL DIMENSIONS +/-1[25] UNLESS OTHERWISE SPECIFIED
- COMPLETE ASSEMBLY LEAD FREE COMPLIANT - THE WETTED SURFACE OF THIS PRODUCT CONTACTED BY CONSUMABLE WATER CONTAINS LESS THAN ONE QUARTER OF ONE PERCENT (0.25%) OF LEAD BY WEIGHT.
- REFERENCE ARMSTRONG PART NUMBER: D195385
- GLOBE VALVE TO BE ORIENTATED SUCH THAT INCOMING FLOW IS UNDER THE SEAT

DO NOT SCALE DRAWING TOLERANCES UNLESS OTHERWISE SPECIFIED	
DIMENSIONING ENGLISH [mm]	
FRACTIONAL ± 1/64	
ANGULAR: ± 2	
DECIMAL	.XXXX ± .0005
	.XXX ± .005 .10
	.XX ± .015 .10
	.X ± .3

NAME	DATE
ROSS PULFIER	07/25/2024
RELEASED	12/18/2024

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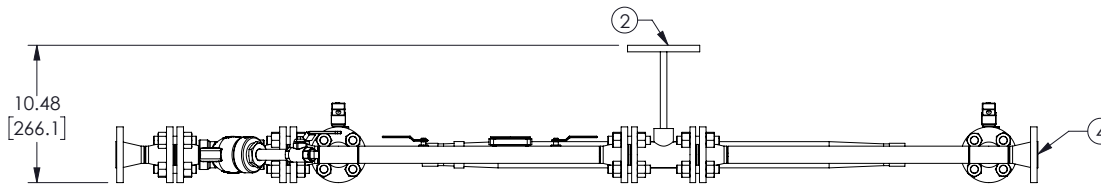
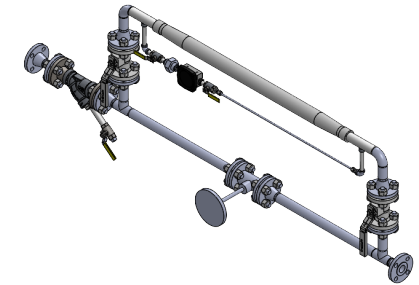
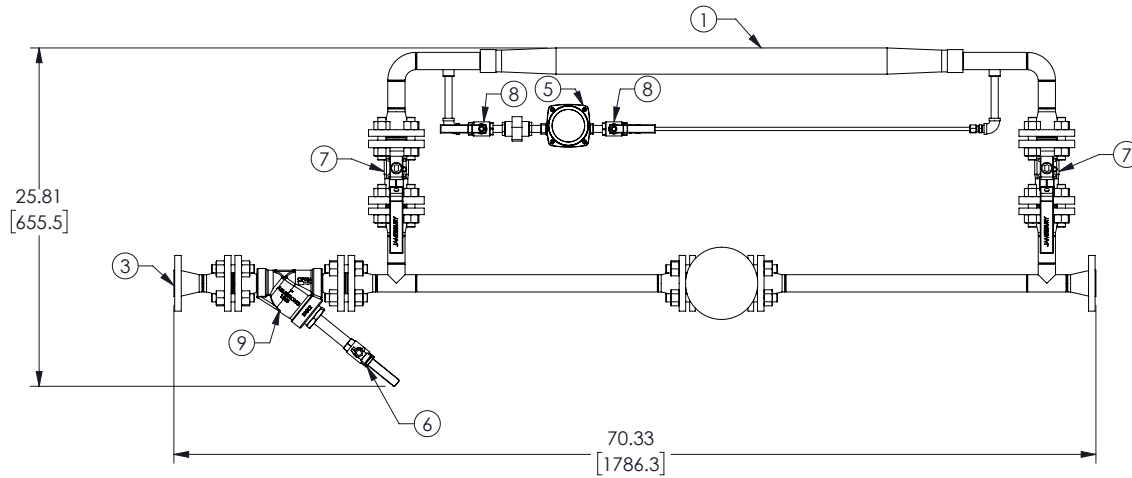
**ANG20PP-SS 1 SS PREPIPED WITH BYPASS**

MATERIAL	SHEET 1 OF 1
REV0	DWG. SALES

# APPROVAL

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

- APPROVED, PROCEED WITH FABRICATION
- APPROVED AS NOTED, PROCEED WITH FABRICATION IN ACCORDANCE WITH COMMENTS
- DISAPPROVED, DO NOT FABRICATE



PROJECT NAME:		
TAG:		
ITEM	DESCRIPTION	CONNECTION
1	ANG25 (1)	1" NPT
2	GLOBE VALVE (1)	1" 150RF
3	WATER INLET	1" 150RF
4	WATER OUTLET	1" 150RF
5	DIFFERENTIAL PRESSURE GAUGE (1)	1/4" NPT
6	BLOWDOWN (1)	1/2" NPT
7	BALL VALVE (2)	1" 150RF
8	BALL VALVE (2)	1/4" NPT
9	STRAINER (1)	1" 150RF
<b>ITEM</b>		<b>MATERIAL</b>
PIPING		SS TP316L

**NOTES:**

1. ALL DIMENSIONS +/-1[25] UNLESS OTHERWISE SPECIFIED
2. COMPLETE ASSEMBLY LEAD FREE COMPLIANT - THE WETTED SURFACE OF THIS PRODUCT CONTACTED BY CONSUMABLE WATER CONTAINS LESS THAN ONE QUARTER OF ONE PERCENT (0.25%) OF LEAD BY WEIGHT.
3. REFERENCE ARMSTRONG PART NUMBER: D195386
4. GLOBE VALVE TO BE ORIENTATED SUCH THAT INCOMING FLOW IS UNDER THE SEAT

DO NOT SCALE DRAWING TOLERANCES UNLESS OTHERWISE SPECIFIED			
DIMENSIONING ENGLISH [mm]			
FRACTIONAL ± 1/64			
ANGULAR: ± 2			
DECIMAL	.XXXX ± .0005	----	----
	.XXX ± .005	.10	
	.XX ± .015	.10	
	.X	.3	

NAME	DATE
Ross Pulifer	08/01/2024
RELEASED	12/18/2024

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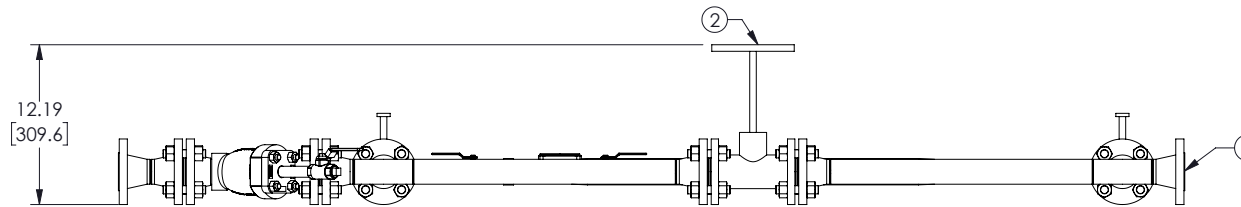
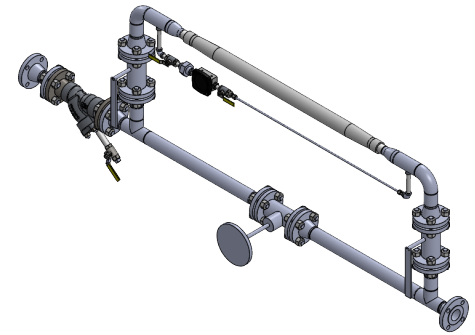
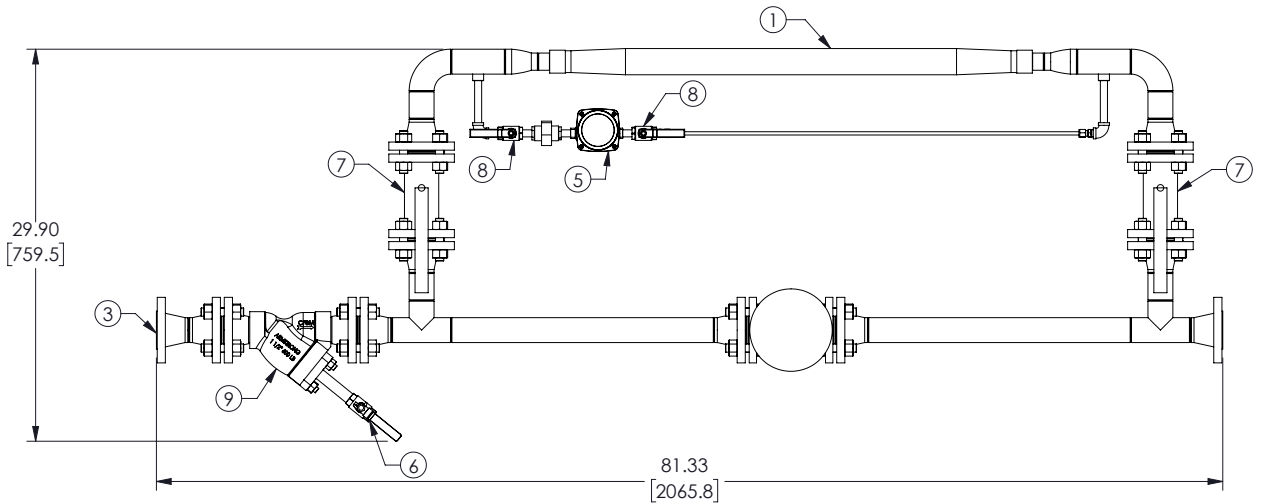
**ANG25PP-SS 1 SS PREPIPED WITH BYPASS**

MATERIAL	SHEET 1 OF 1
REV0	DWG. SALES

# APPROVAL

BY: \_\_\_\_\_ DATE: \_\_\_\_\_


- APPROVED, PROCEED WITH FABRICATION
- APPROVED AS NOTED, PROCEED WITH FABRICATION IN ACCORDANCE WITH COMMENTS
- DISAPPROVED, DO NOT FABRICATE




<b>PROJECT NAME:</b>		
<b>TAG:</b>		
ITEM	DESCRIPTION	CONNECTION
1	ANG25 (1)	1" NPT
2	GLOBE VALVE (1)	1-1/2" 150RF
3	WATER INLET	1-1/2" 150RF
4	WATER OUTLET	1-1/2" 150RF
5	DIFFERENTIAL PRESSURE GAUGE (1)	1/4" NPT
6	BLOWDOWN (1)	1/2" NPT
7	BALL VALVE (2)	1-1/2" 150RF
8	BALL VALVE (2)	1/4" NPT
9	STRAINER (1)	1-1/2" 150RF
<b>ITEM</b>		<b>MATERIAL</b>
PIPING		SS TP316L

**NOTES:**

- ALL DIMENSIONS +/-1[25] UNLESS OTHERWISE SPECIFIED
- COMPLETE ASSEMBLY LEAD FREE COMPLIANT - THE WETTED SURFACE OF THIS PRODUCT CONTACTED BY CONSUMABLE WATER CONTAINS LESS THAN ONE QUARTER OF ONE PERCENT (0.25%) OF LEAD BY WEIGHT.
- REFERENCE ARMSTRONG PART NUMBER: D195387
- GLOBE VALVE TO BE ORIENTATED SUCH THAT INCOMING FLOW IS UNDER THE SEAT

 DO NOT SCALE DRAWING TOLERANCES UNLESS OTHERWISE SPECIFIED DIMENSIONING ENGLISH [mm]													
FRACTIONAL ± 1/64 ANGULAR: ± 2													
DECIMAL	<table border="1"> <tr> <td>.XXX</td> <td>± .0005</td> <td>----</td> </tr> <tr> <td>.XX</td> <td>± .005</td> <td>.10</td> </tr> <tr> <td>.X</td> <td>± .015</td> <td>.10</td> </tr> <tr> <td></td> <td>-----</td> <td>.3</td> </tr> </table>	.XXX	± .0005	----	.XX	± .005	.10	.X	± .015	.10		-----	.3
.XXX	± .0005	----											
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	-----	.3											



**Armstrong**

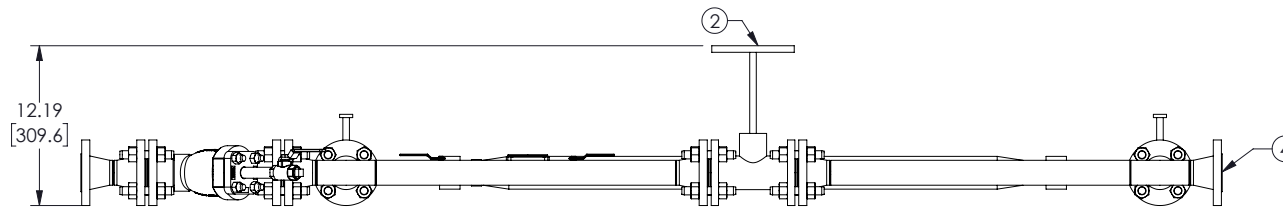
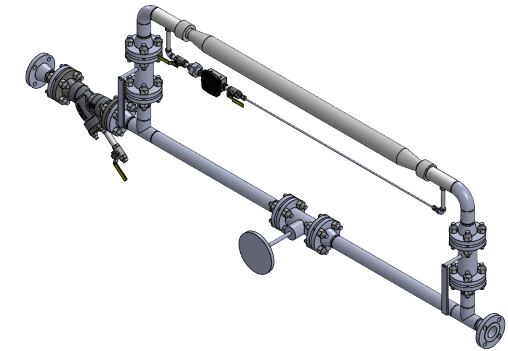
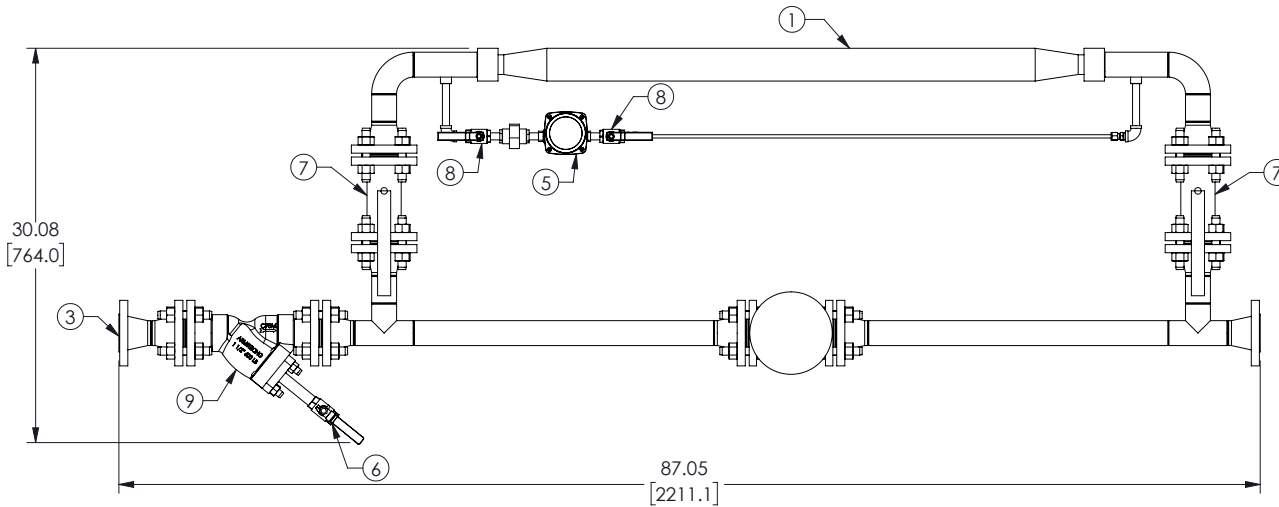
NAME	DATE
Ross Pulifer	08/01/2024
RELEASED	12/18/2024

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MATERIAL	SHEET 1 OF 1
REV0	DWG. SALES

# APPROVAL

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

- APPROVED, PROCEED WITH FABRICATION
- APPROVED AS NOTED, PROCEED WITH FABRICATION IN ACCORDANCE WITH COMMENTS
- DISAPPROVED, DO NOT FABRICATE



<b>PROJECT NAME:</b>		
<b>TAG:</b>		
ITEM	DESCRIPTION	CONNECTION
1	ANG40 (1)	1-1/2" NPT
2	GLOBE VALVE (1)	1-1/2" 150RF
3	WATER INLET	1-1/2" 150RF
4	WATER OUTLET	1-1/2" 150RF
5	DIFFERENTIAL PRESSURE GAUGE (1)	1/4" NPT
6	BLOWDOWN (1)	1/2" NPT
7	BALL VALVE (2)	1-1/2" 150RF
8	BALL VALVE (2)	1/4" NPT
9	STRAINER (1)	1-1/2" 150RF
<b>ITEM</b>		<b>MATERIAL</b>
PIPING		SS TP316L

**NOTES:**

- ALL DIMENSIONS +/-1[25] UNLESS OTHERWISE SPECIFIED
- COMPLETE ASSEMBLY LEAD FREE COMPLIANT - THE WETTED SURFACE OF THIS PRODUCT CONTACTED BY CONSUMABLE WATER CONTAINS LESS THAN ONE QUARTER OF ONE PERCENT (0.25%) OF LEAD BY WEIGHT.
- REFERENCE ARMSTRONG PART NUMBER: D201148
- GLOBE VALVE TO BE ORIENTATED SUCH THAT INCOMING FLOW IS UNDER THE SEAT

DO NOT SCALE DRAWING TOLERANCES UNLESS OTHERWISE SPECIFIED	
DIMENSIONING ENGLISH [mm]	
FRACTIONAL	± 1/64
ANGULAR:	± 2
DECIMAL	.XXX ± .005 .10 .XX ± .015 .10 .X ± .3



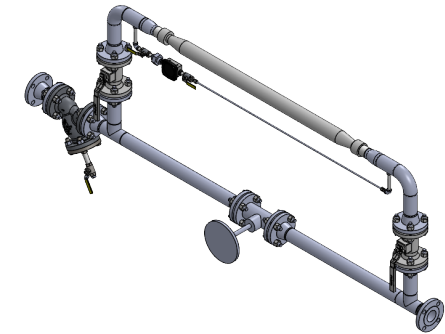
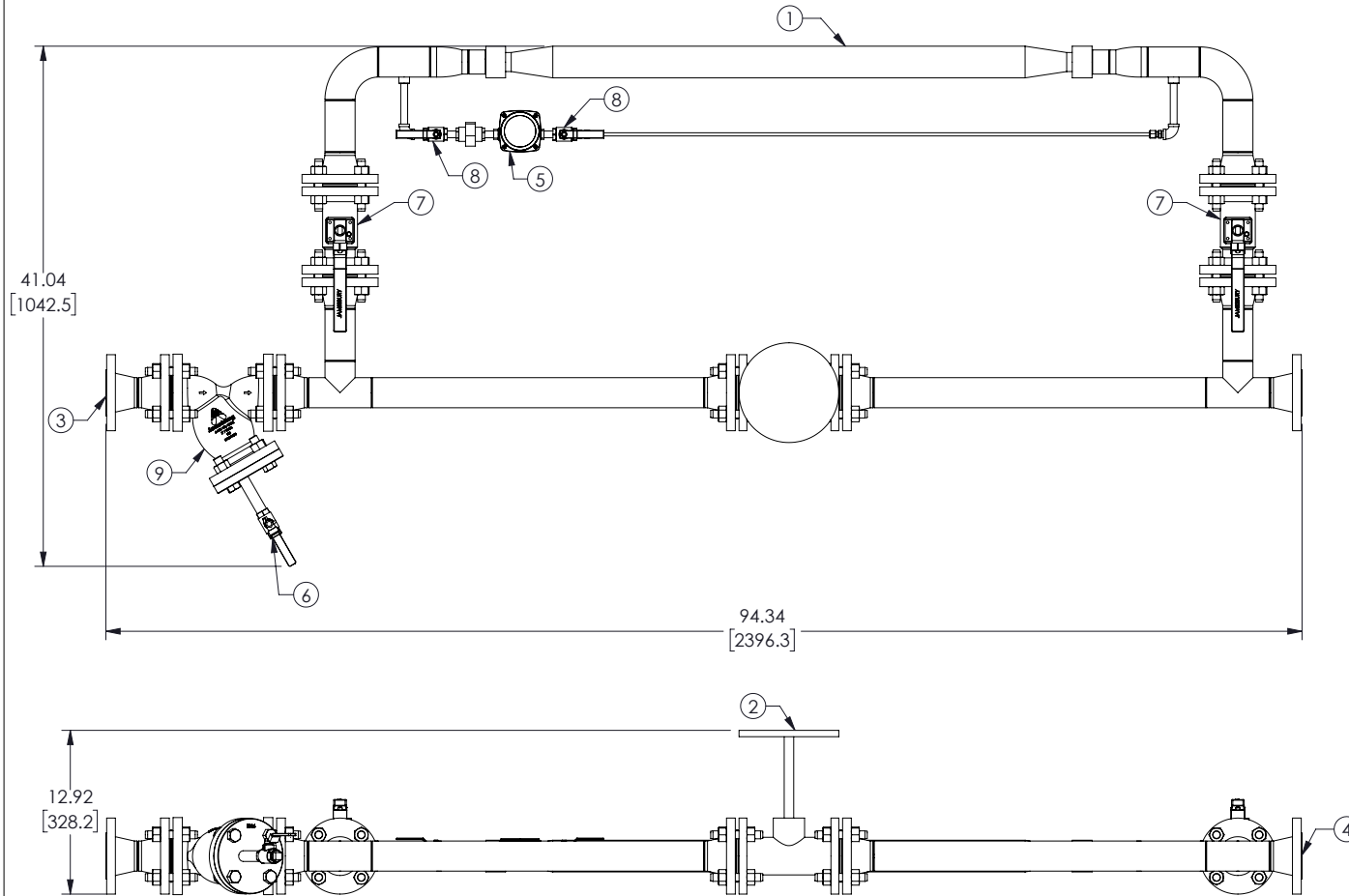
NAME	DATE
DRAWN Ross Pulifer	11/11/2024
RELEASED	12/18/2024

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ANG40PP-SS 1-1/2 SS PREPIPED WITH BYPASS	
MATERIAL	SHEET 1 OF 1
REV#	DWG. SALES

# APPROVAL

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

- APPROVED, PROCEED WITH FABRICATION
- APPROVED AS NOTED, PROCEED WITH FABRICATION IN ACCORDANCE WITH COMMENTS
- DISAPPROVED, DO NOT FABRICATE



<b>PROJECT NAME:</b>		
<b>TAG:</b>		
ITEM	DESCRIPTION	CONNECTION
1	ANG40 (1)	1-1/2" 150RF
2	GLOBE VALVE (1)	2" 150RF
3	WATER INLET	2" 150RF
4	WATER OUTLET	2" 150RF
5	DIFFERENTIAL PRESSURE GAUGE (1)	1/4" NPT
6	BLOWDOWN (1)	1/2" NPT
7	BALL VALVE (2)	2" 150RF
8	BALL VALVE (2)	1/4" NPT
9	STRAINER (1)	2" 150RF
<b>ITEM</b>		<b>MATERIAL</b>
PIPING		SS TP316L

**NOTES:**

1. ALL DIMENSIONS +/-1[25] UNLESS OTHERWISE SPECIFIED
2. COMPLETE ASSEMBLY LEAD FREE COMPLIANT - THE WETTED SURFACE OF THIS PRODUCT CONTACTED BY CONSUMABLE WATER CONTAINS LESS THAN ONE QUARTER OF ONE PERCENT (0.25%) OF LEAD BY WEIGHT.
3. REFERENCE ARMSTRONG PART NUMBER: D201149
4. GLOBE VALVE TO BE ORIENTATED SUCH THAT INCOMING FLOW IS UNDER THE SEAT

DO NOT SCALE DRAWING TOLERANCES UNLESS OTHERWISE SPECIFIED	
DIMENSIONING ENGLISH [mm]	
FRACTIONAL ± 1/64	
ANGULAR: ± 2	
DECIMAL	.XXXX ± .0005
	.XXX ± .005 .010
	.XX ± .015 .10
	.X ± .3



NAME	DATE
ROSS PULFIER	11/11/2024
RELEASED	12/18/2024

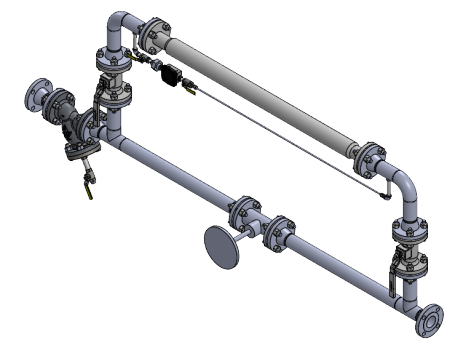
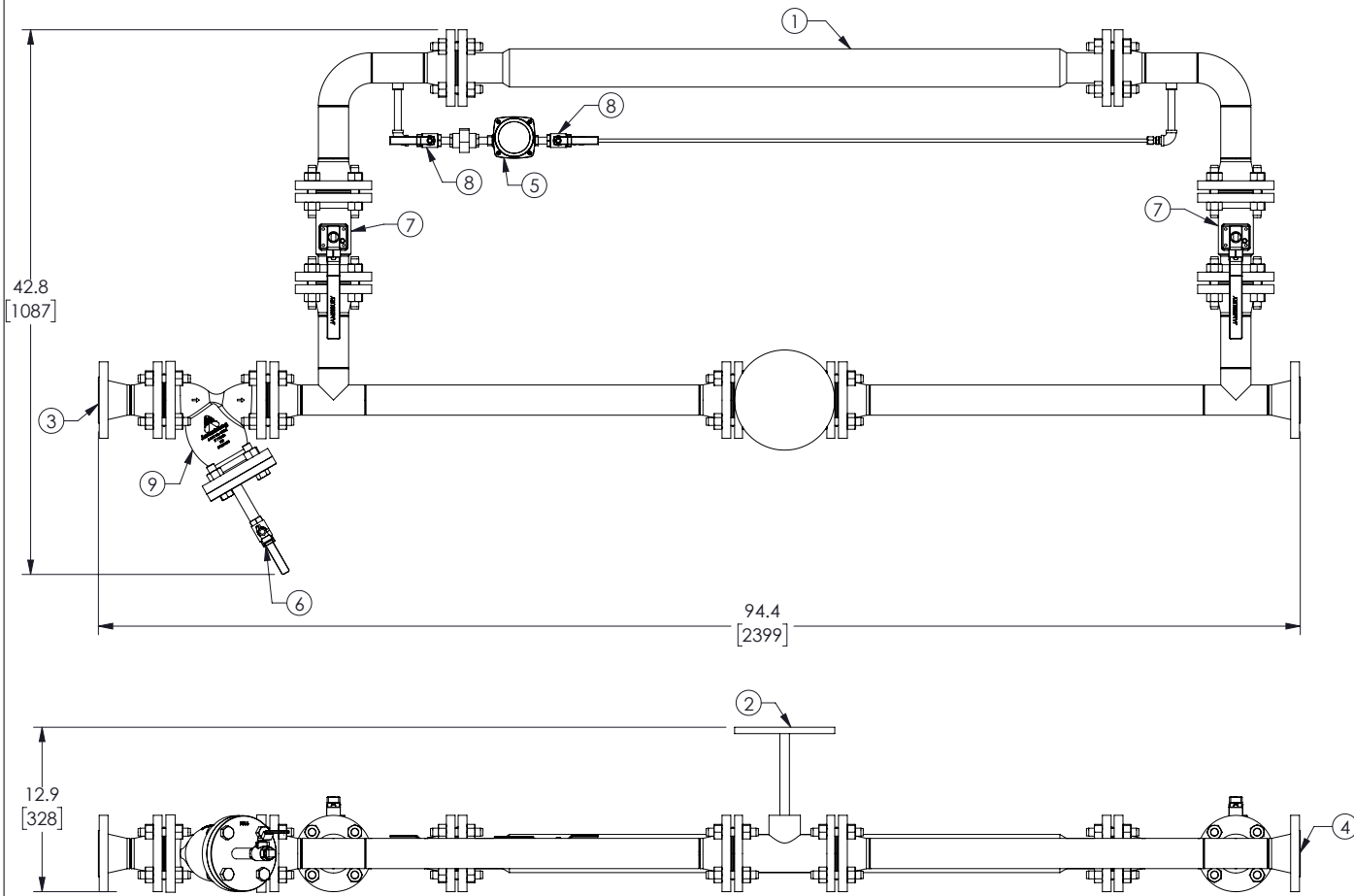
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**ANG40PP-SS 2 SS PREPARED WITH BYPASS**

MATERIAL	SHEET 1 OF 1
REV#	DWG. SALES

# APPROVAL

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

- APPROVED, PROCEED WITH FABRICATION
- APPROVED AS NOTED, PROCEED WITH FABRICATION IN ACCORDANCE WITH COMMENTS
- DISAPPROVED, DO NOT FABRICATE



<b>PROJECT NAME:</b>		
<b>TAG:</b>		
ITEM	DESCRIPTION	CONNECTION
1	ANG50 (1)	2" 150RF
2	GLOBE VALVE (1)	2" 150RF
3	WATER INLET	2" 150RF
4	WATER OUTLET	2" 150RF
5	DIFFERENTIAL PRESSURE GAUGE (1)	1/4" NPT
6	BLOWDOWN (1)	1/2" NPT
7	BALL VALVE (2)	2" 150RF
8	BALL VALVE (2)	1/4" NPT
9	STRAINER (1)	2" 150RF
<b>ITEM</b>		<b>MATERIAL</b>
PIPING		SS TP316L

- NOTES:
- ALL DIMENSIONS +/-1[25] UNLESS OTHERWISE SPECIFIED
  - COMPLETE ASSEMBLY LEAD FREE COMPLIANT - THE WETTED SURFACE OF THIS PRODUCT CONTACTED BY CONSUMABLE WATER CONTAINS LESS THAN ONE QUARTER OF ONE PERCENT (0.25%) OF LEAD BY WEIGHT.
  - REFERENCE ARMSTRONG PART NUMBER: D195388
  - GLOBE VALVE TO BE ORIENTATED SUCH THAT INCOMING FLOW IS UNDER THE SEAT

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		ANG50PP-SS 2 SS PREPIPED WITH BYPASS	
DO NOT SCALE DRAWING TOLERANCES UNLESS OTHERWISE SPECIFIED DIMENSIONING ENGLISH (mm)		NAME: Ross Pulifer DATE: 08/02/2024	
FRACTIONAL ± 1/64 ANGULAR: ± 2		MATERIAL:	
DECIMAL .XXXX ± .0005 .XXX ± .005 .10 .XX ± .015 .10 .X ± .3		SHEET 1 OF 1	
RELEASED:		12/18/2024	
		REV0 DWG. SALES	