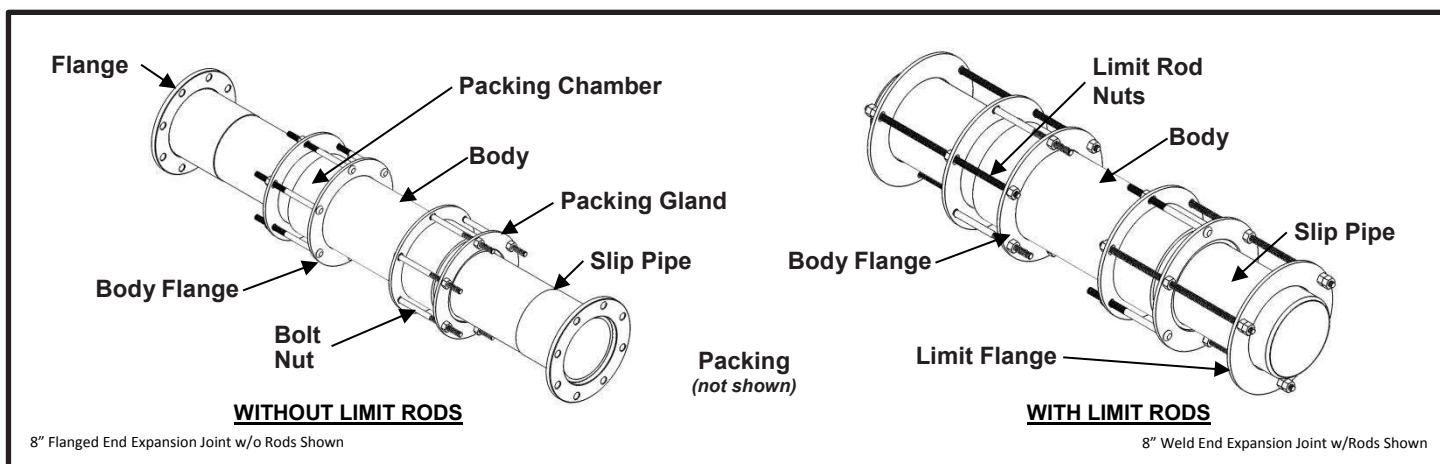


SPECIFICATION

EXPANSION JOINT – DOUBLE END

MODEL 612



APPLICATIONS

- **Typical Uses**
 - Joining pipe while absorbing thermal expansion and contraction in pipelines due to ambient temperature changes or hot working conditions
 - Joining pipe while absorbing changes in horizontal or vertical pipe length due to differential movement of supporting structures such as buildings, docks, tanks, bridges, etc.
- **Standard Pipe Sizes**
 - 3" to 24" nominal
- **Standard End Configurations**
 - Butt-Weld Ends, Flanged Ends, Grooved Ends, Threaded Ends, Lock Coupling Ends, Mechanical Joint, Plain for Locking or Harnessed Ends
- **Type of Pipe**
 - Carbon Steel, Stainless Steel, Cast Iron
- **Working Pressure**
 - 150 psi (standard design)

MATERIALS

- **Body and Body Flange**
 - Carbon Steel per ASTM A283C, A53, or AISI C1015-20
 - Flexi-Coat[®] fusion bonded epoxy finish
 - Flange incorporated with integral oval bolt head pocket for one wrench installation
 - Stop plate welded to limit travel from left to right in body
- **Slip Pipe**
 - Carbon Steel per ASTM A283C, A53, or AISI C1015-20
 - Flexi-Coat[®] fusion bonded epoxy finish applied to non-chrome plated surface
 - Hard chrome plate applied to machined surface to facilitate easy movement, protect against corrosion and pitting, resist scratching and scoring, while reducing friction and wear on packing rings
- **Packing Gland**
 - Carbon Steel per ASTM A283C, A53, or AISI C1015-20
 - Flexi-Coat[®] fusion bonded epoxy finish applied to non-chrome plated surface
 - Designed to compress packing for positive seal
 - Removable for future maintenance and packing adjustment

SPECIFICATION

EXPANSION JOINT – DOUBLE END

MODEL 612

- **Limit Flange**
 - Carbon Steel per ASTM A283C, A53, or AISI C1015-20
 - Flexi-Coat® fusion bonded epoxy finish applied to non-chrome plated surface
- **Packing**
 - Rubber
 - Nitrile (Buna-N) per ASTM D2000
 - Compounded to resist water, oil, natural gas, acids, alkalies, most (aliphatic) hydrocarbon fluids, and many other chemicals
 - Temperature range: -20°F to +180°F
 - Flax Packing
 - Braided Ramie Yarn, Paraffin Impregnated
 - Impregnated with paraffin and mineral oil
 - Rot and mildew resistant
 - Medium-hard square plait construction packing with extremely low frictional characteristics
 - Maximum temperature of 212°F
- **Bolts**
 - High Strength Low Alloy (HSLA) Steel per AWWA C111/A21.11
 - 5/8"-11UNC, 10.50" long, Oval Neck Track Head
 - Rolled threads for improved physical characteristics, greater thread accuracy, and smooth surface finish
- **Limit Rods**
 - HSLA Steel per AWWA C111/A21.11
 - 5/8"-11UNC, All Thread
 - Rolled threads for improved physical characteristics, greater thread accuracy, and smooth surface finish
- **Nuts**
 - HSLA Steel per AWWA C111/A21.11
 - 5/8"-11UNC, Heavy Hex Semi-Finished
 - Double nuts provided on limit rods for locking/jam feature

LISTINGS

- Fusion-Bonded Epoxy Coating meets requirements of AWWA C213 and is certified to NSF/ANSI 61
- Meets applicable AWWA C221 standards

OPTIONS

- Alternative materials of construction (e.g. 304SS, 316SS, Monel, etc.)
- Type 304 Stainless Steel hardware with fluoropolymer coated nuts to prevent galling
- Type 316 Stainless Steel hardware with fluoropolymer coated nuts to prevent galling
- Alternative gasket/packing material (e.g. Buna-N, EPDM, etc.)
- Anode connector
- Anchor studs
- Higher working pressure design
- Custom joint or expansion length
- Built-in anchor base
- Custom end configurations
- Pipe stops
- Packing lubrication features (e.g. alemite fitting, lantern ring, etc.)

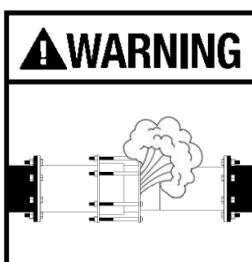
SPECIFICATION

EXPANSION JOINT – DOUBLE END

MODEL 612

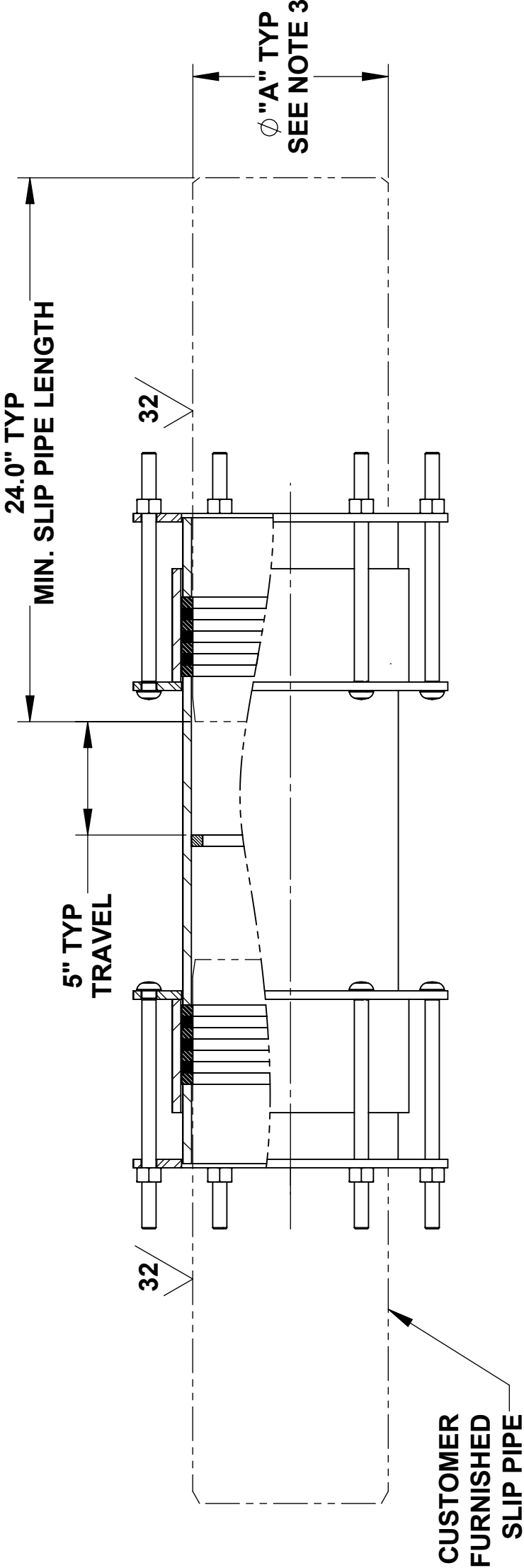
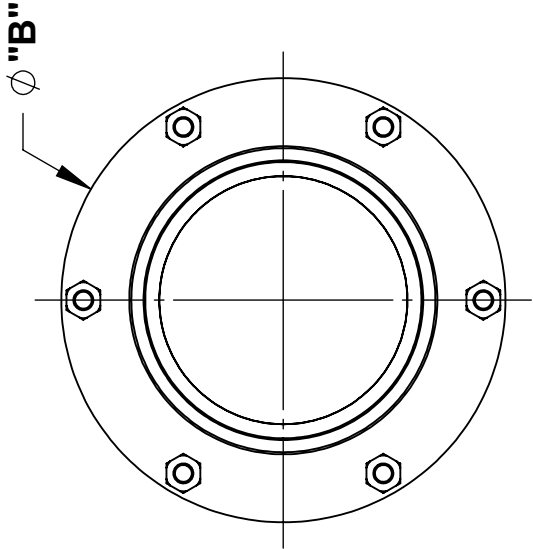
NOTES

- Double end expansion joints **must always be** anchored to prevent the total pipe movement from accumulating in one end
- Slip-type expansion joints must be installed in an accessible location for future maintenance and packing adjustment
- Fitting designed for axial pipe movement only (not for angular deflection)
- Flexi-Coat® is a registered trademark of Smith-Blair Inc.
- These product specifications were correct at the time of publication and are subject to change without notice
- See the Smith-Blair website for part numbers and ordering information
- See the Smith-Blair website for warranty information
- See the Smith-Blair website for corrosion notice



THIS PRODUCT DOES NOT RESTRAIN PIPE MOVEMENT. Proper anchoring is required to prevent pipe pullout. Failure to anchor or improper anchoring can result in dangerous pipe content escape, property damage, serious injury, or death. Read the product installation instructions prior to installing this product.

WRENCH SIZE CHART		
NUT		SIZE
5/8"-11UNC HH		1-1/16"



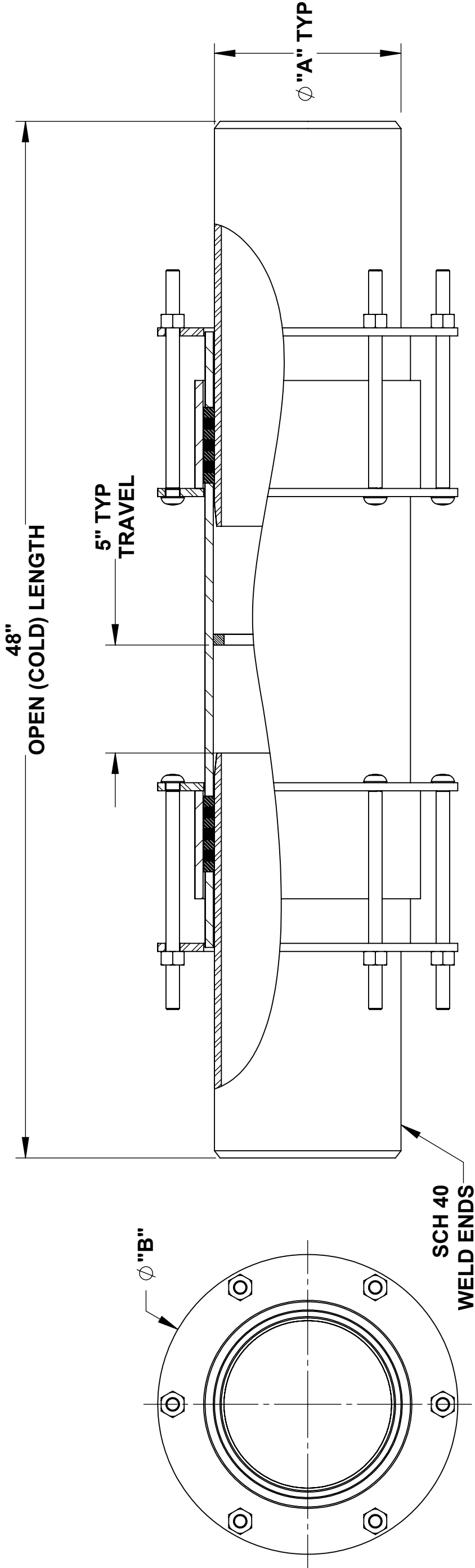
WELD ENDS WITHOUT SLIP PIPE - WITHOUT LIMIT RODS

NOM. PIPE SIZE	SLIP PIPE O.D. "A"	MAX O.D. "B"	APPROX. WEIGHT (LBS)
3	3.50	8.38	60
4	4.50	9.63	75
6	6.63	11.88	100
8	8.63	13.88	145
10	10.75	16.00	180
12	12.75	18.00	205
14	14.00	19.25	235
16	16.00	21.25	265
18	18.00	23.25	305
20	20.00	25.25	335
22	22.00	27.25	370
24	24.00	29.31	400

- NOTES:
- SEE SMITH-BLAIR CATALOG FOR ADDITIONAL DETAILS
 - 8" WELD END EXPANSION JOINT SHOWN OTHER SIZES SIMILAR
 - CUSTOMER FURNISHED SLIP PIPE MUST HAVE A PREPARED END AT LEAST 24IN IN LENGTH THAT IS ROUND, SURFACE ROUGHNESS OF 32μIN OR BETTER 18IN MIN. FROM STAB END, AND NO GREATER THAN +.030" OR -.010" FROM NOMINAL SIZE.
 - ENGINEERED FOR AXIAL PIPE MOVEMENT ONLY

TOLERANCES U.N.O. XX= ±.03 XXX= ±.015 FRACTIONS= ANGLES=+1° MACH. FIN=	NOTES: REMOVE BURRS AND SHARP EDGES DO NOT SCALE DWG.		APP'D		DATE
			CK'D		DATE
	SCALE: N/A	ALL DIMENSIONS ARE IN INCHES.	DRN	CHD	DATE
TITLE					
SPECIFICATION					
EXPANSION JOINT - DOUBLE END					
MODEL 612					
SMITH-BLAIR, Inc. TEXARKANA, ARKANSAS			P/N	N/A	
			SPEC_612.DRW		1 OF 5
			DWG. NO.		REV.

WRENCH SIZE CHART		
NUT		SIZE
5/8"-11UNC HH		1-1/16"



WELD ENDS WITH SLIP PIPE - WITHOUT LIMIT RODS

NOM. PIPE SIZE	SLIP PIPE O.D. "A"	MAX O.D. "B"	APPROX. WEIGHT (LBS)
3	3.50	8.38	85
4	4.50	9.63	120
6	6.63	11.88	160
8	8.63	13.88	230
10	10.75	16.00	290
12	12.75	18.00	405
14	14.00	19.25	475
16	16.00	21.25	530
18	18.00	23.25	575
20	20.00	25.25	625
22	22.00	27.25	670
24	24.00	29.31	740

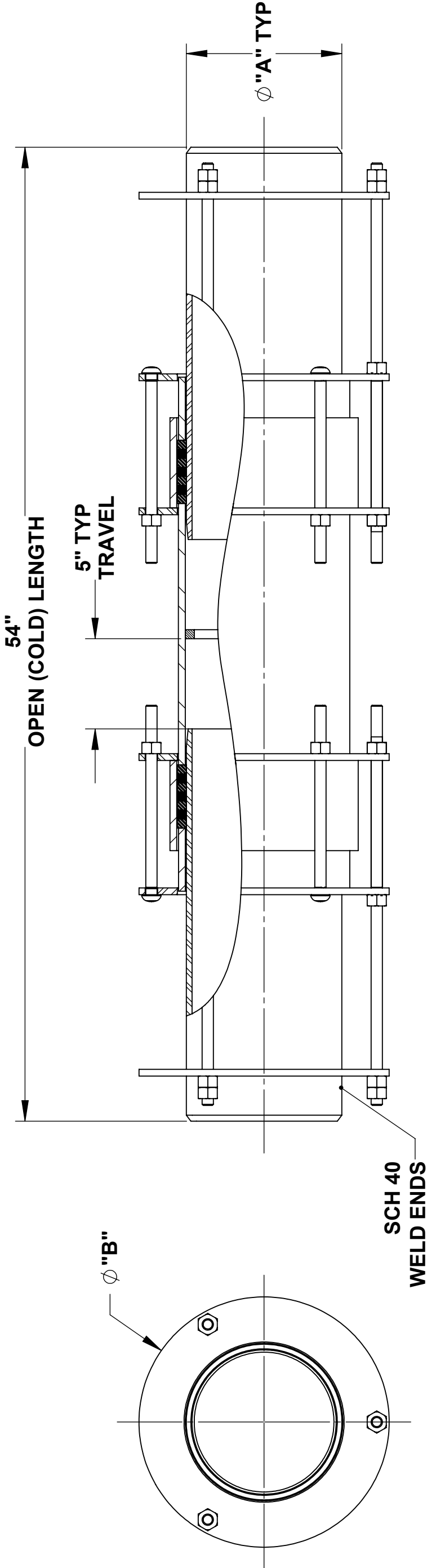
- NOTES:
- SEE SMITH-BLAIR CATALOG FOR ADDITIONAL DETAILS
 - 8" WELD END EXPANSION JOINT SHOWN OTHER SIZES SIMILAR
 - ENGINEERED FOR AXIAL PIPE MOVEMENT ONLY

TOLERANCES U.N.O. XX= +.03 XXX= +.015 FRACTIONS= ANGLES=+1° MACH. FIN=	NOTES: REMOVE BURRS AND SHARP EDGES DO NOT SCALE DWG.	APP'D	DATE
		CK'D	DATE
	SCALE: N/A	DRN	CHD
ALL DIMENSIONS ARE IN INCHES.		DATE	12/17/15

TITLE	SPECIFICATION		
	EXPANSION JOINT - DOUBLE END MODEL 612		

SMITH-BLAIR, Inc. TEXARKANA, ARKANSAS	P/N		N/A	
	SPEC_612.DRW		2 OF 5	8/26/16 REV.

WRENCH SIZE CHART		
NUT		SIZE
5/8"-11UNC HH		1-1/16"



WELD ENDS WITH SLIP PIPE & LIMIT RODS

NOM. PIPE SIZE	SLIP PIPE O.D. "A"	MAX O.D. "B"	APPROX. WEIGHT (LBS)
3	3.50	8.38	100
4	4.50	9.63	130
6	6.63	11.88	190
8	8.63	13.88	270
10	10.75	16.00	340
12	12.75	18.00	450
14	14.00	19.25	500
16	16.00	21.25	560
18	18.00	23.25	610
20	20.00	25.25	700
22	22.00	27.25	770
24	24.00	29.31	840

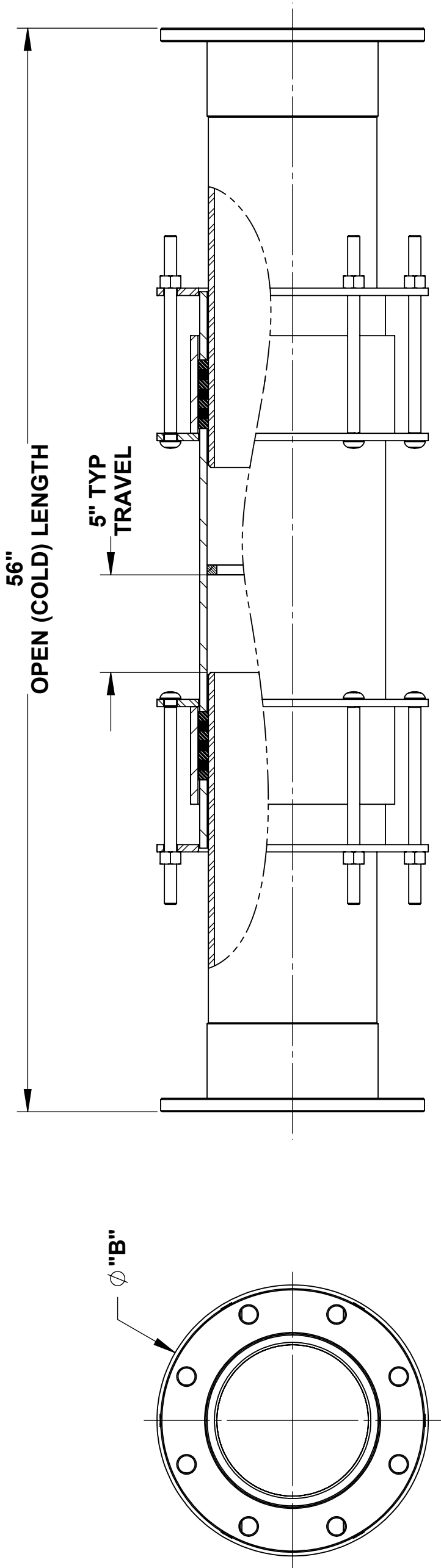
- NOTES:
- SEE SMITH-BLAIR CATALOG FOR ADDITIONAL DETAILS
 - 8" WELD END EXPANSION JOINT SHOWN OTHER SIZES SIMILAR
 - ENGINEERED FOR AXIAL PIPE MOVEMENT ONLY

TOLERANCES U.N.O. XX= +.03 XXX= +.015 FRACTIONS= ANGLES=+1° MACH. FIN=	NOTES: REMOVE BURRS AND SHARP EDGES DO NOT SCALEDWG.	APP'D	DATE
		CK'D	DATE
	SCALE: N/A	DRN	CHD
ALL DIMENSIONS ARE IN INCHES.			DATE
			12/17/15

TITLE	SPECIFICATION	
	EXPANSION JOINT - DOUBLE END MODEL 612	

SMITH-BLAIR, Inc. TEXARKANA, ARKANSAS	P/N		N/A	
	SPEC_612.DRW		3 OF 5	8/26/16 SHEET REV.

WRENCH SIZE CHART		
NUT		SIZE
5/8"-11UNC HH		1-1/16"



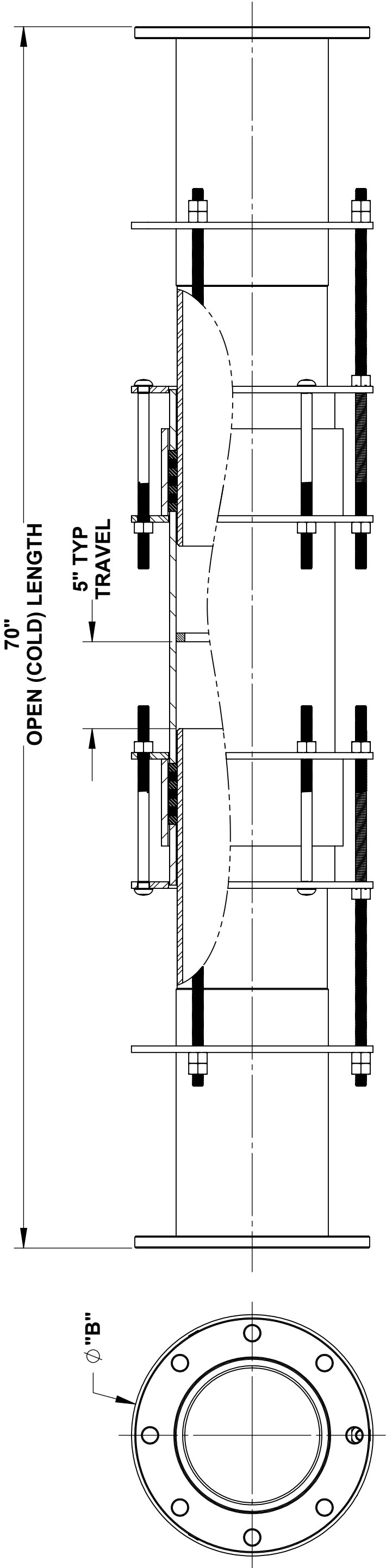
FLANGED ENDS WITH SLIP PIPE - WITHOUT LIMIT RODS

NOM. PIPE SIZE	MAX O.D. "B"	APPROX. WEIGHT (LBS)
3	8.38	100
4	9.63	140
6	11.88	200
8	13.88	290
10	16.00	375
12	18.00	535
14	19.25	585
16	21.25	725
18	23.25	835
20	25.25	955
22	27.25	1040
24	29.31	1180

- NOTES:
- SEE SMITH-BLAIR CATALOG FOR ADDITIONAL DETAILS
 - 8" FLANGED END EXPANSION JOINT SHOWN OTHER SIZES SIMILAR
 - ENGINEERED FOR AXIAL PIPE MOVEMENT ONLY

TOLERANCES U.N.O. XX= +.03 XXX= +.015 FRACTIONS= ANGLES=+1° MACH. FIN=	NOTES: REMOVE BURRS AND SHARP EDGES DO NOT SCALE DWG.	APP'D	DATE
		CK'D	DATE
	SCALE: N/A	DRN	CHD
ALL DIMENSIONS ARE IN INCHES.			DATE
TITLE			12/17/15
SPECIFICATION			
EXPANSION JOINT - DOUBLE END			
MODEL 612			
SMITH-BLAIR, Inc. TEXARKANA, ARKANSAS		P/N	N/A
		SPEC_612.DRW	4 OF 5 SHEET
		DWG. NO.	REV.
			8/26/16

WRENCH SIZE CHART		
NUT		SIZE
5/8"-11UNC HH		1-1/16"



FLANGED ENDS WITH SLIP PIPE & LIMIT RODS

NOM. PIPE SIZE	MAX O.D. "B"	APPROX. WEIGHT (LBS)
3	8.38	115
4	9.63	155
6	11.88	230
8	13.88	330
10	16.00	435
12	18.00	555
14	19.25	665
16	21.25	745
18	23.25	870
20	25.25	1030
22	27.25	1140
24	29.31	1280

- NOTES:
- SEE SMITH-BLAIR CATALOG FOR ADDITIONAL DETAILS
 - 8" FLANGED END EXPANSION JOINT SHOWN OTHER SIZES SIMILAR
 - ENGINEERED FOR AXIAL PIPE MOVEMENT ONLY

TOLERANCES U.N.O. XX= +.03 XXX= +.015 FRACTIONS= ANGLES=+1° MACH. FIN=	NOTES: REMOVE BURRS AND SHARP EDGES DO NOT SCALEDWG.	APP'D	DATE
		CK'D	DATE
	SCALE: N/A	DRN	CHD
ALL DIMENSIONS ARE IN INCHES.		DATE	12/17/15
TITLE SPECIFICATION EXPANSION JOINT - DOUBLE END MODEL 612			
SMITH-BLAIR, Inc. TEXARKANA, ARKANSAS		P/N N/A	
		SPEC_612.DRW	5 OF 5 SHEET
		DWG. NO.	REV.