

PISTA® TURBO™ GRIT PUMP

PISTA® Grit Removal System



Smith & Loveless Inc.
Above All Others.™

ENGINEERING DATA

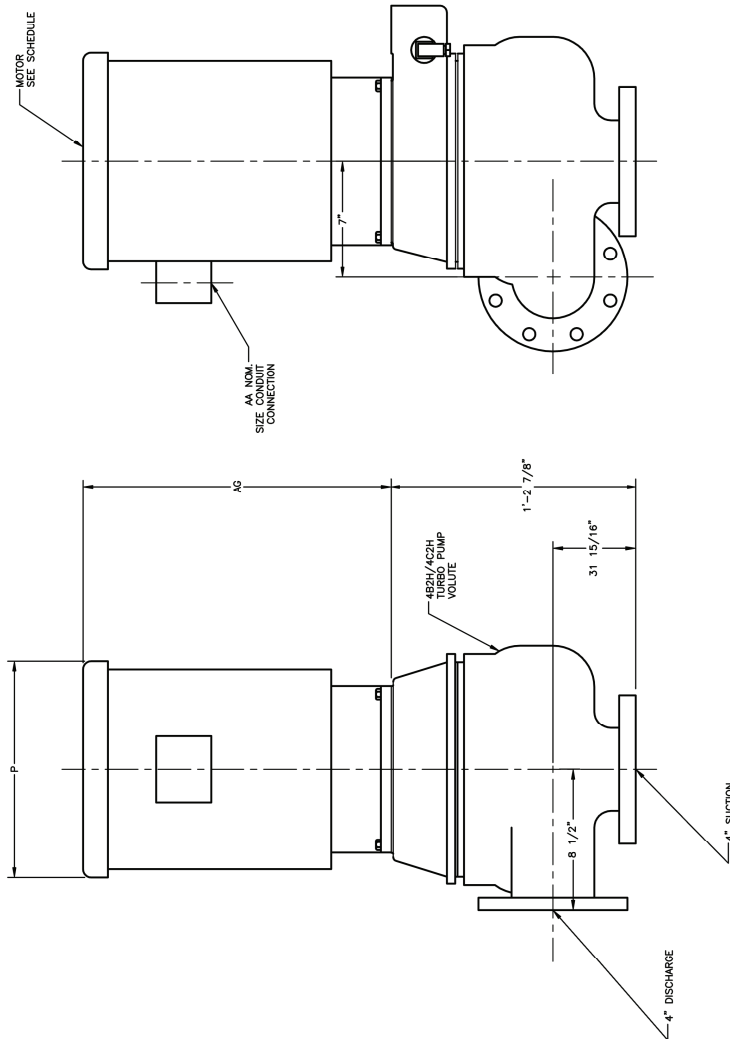


Smith & Loveless, Inc.®

14040 Santa Fe Trail Drive
Lenexa, Kansas 66215-1284

PISTA® TURBO™ Grit Pump
4B2H Pump Outline
Dimensions
Outline Drawing 61B15
August 2012
Page M1

PUMP MODEL	HORSE POWER		MOTOR DIMS.	
	1800 R.P.M.	1200 R.P.M.	AG (MAX.)	P (MAX.)
4B2H	7 1/2	3	1'-10 1/4"	1'-0"
	10	5	1'-9"	1'-0"
	15	7 1/2	2'-3 1/2"	1'-3 1/2"
4C2H	20	---	2'-1 1/2"	1'-3"
	25	---	2'-3"	1'-4"



NOTES:
1. FLANGES ARE FACED AND DRILLED A.S.A CLASS 125
2. COPYRIGHT (C) 2004, 2010, 2011 SMITH & LOVELESS, INC.

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REDRAWN PER REVISION B

61B15/B

OUTLINE DIMENSIONS

4B2H/4C2H TURBO PUMP

U/M EA. WT.

61B15

1 of 1

Smith & Loveless, Inc.

ENGINEERING DATA

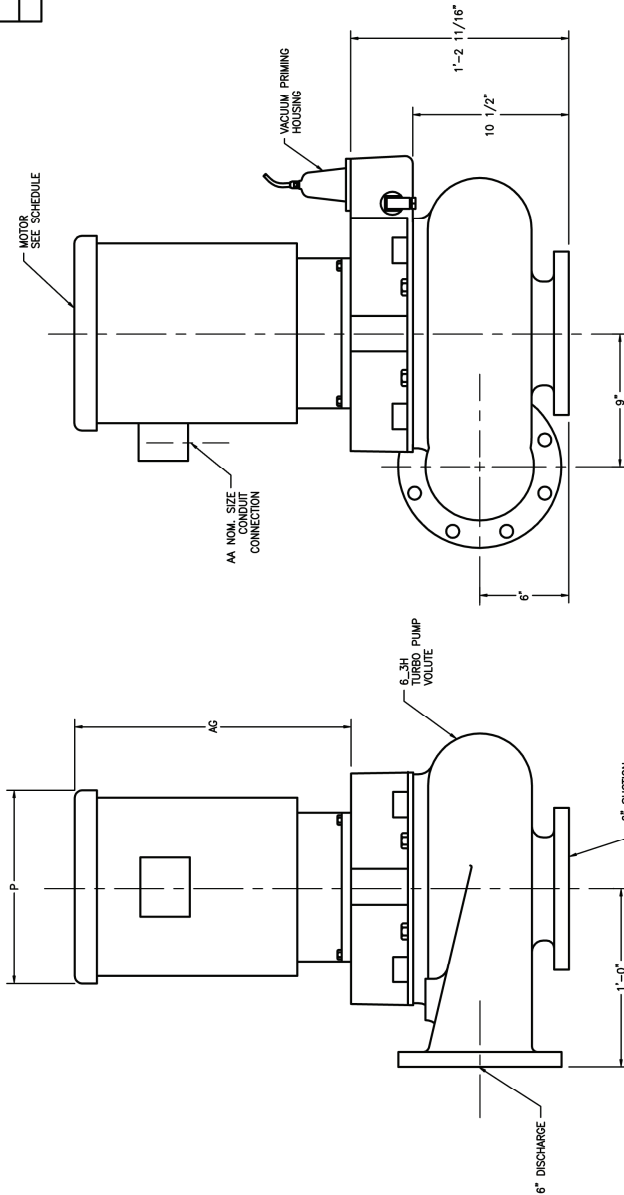


Smith & Loveless, Inc.®

14040 Santa Fe Trail Drive
Lenexa, Kansas 66215-1284

PISTA® TURBO™ Grit Pump
6B3H / 6C3H Outline
Dimensions
Outline Drawing 61B20
August 2012
Page M3

MOTOR SCHEDULE		MOTOR DIMS.	
HORSE POWER	1200 R.P.M.	AG (MAX.)	P (MAX.)
1800	10	2'-1 1/2"	1'-1"
15	---	2'-1 1/2"	1'-3"
20	---	2'-1 1/2"	1'-1"
25	---	2'-4 1/2"	1'-5"
30	---	2'-5"	1'-4 1/2"
40	---	2'-9"	2'-3"
50	---	2'-7"	1'-6 1/2"



- NOTES:
1. FLANGES ARE FACED AND DRILLED A.S.A. CLASS 125.
 2. COPYRIGHT (C) 2004 SMITH & LOVELESS, INC.

DATE	BY	APPROVED	FOR
1/9/2004	JRB		ALLOWABLE TOLERANCES
4/29/04	RGD		FUNCTIONS
6/29/04	C.G.M.		DECIMALS
	NTS		ANGLES
			SIZE
			FILE NAME
			SCALE
			WT.
			REV

61B20

OUTLINE DIMENSIONS
6B3H/6C3H/6D3H TURBO PUMP

FILE NAME: \SALES\61B20...
SCALE: 1=5.333
REV: 61B20

DATE: 12/04/04
BY: NTS
APPROVED: [Signature]

Smith & Loveless, Inc.®

SHEET 1 OF 1

ENGINEERING DATA



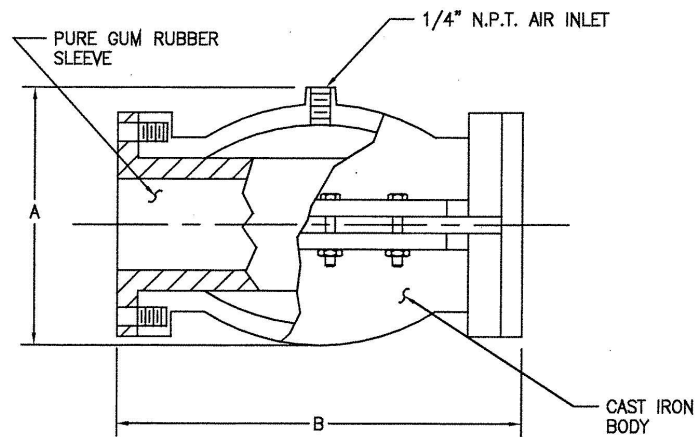
Smith &
Loveless, Inc.®

14040 Santa Fe Trail Drive
Lenexa, Kansas 66215-1284

PISTA® Grit Chamber
Pinch Valve, Type A
Outline Drawing 2L159
August 2012
Page M5

PINCH VALVE, TYPE A

OUTLINE DRAWING 2L159



DRAWING 2L159

SIZE OF PINCH VALVE	A	B	APPROX. WT. (LBS.)
4"	11"	12-1/2"	85
6"	13"	20"	166

NOTE: Air inlet connections are furnished on both top and bottom.

NOTE: Should be installed in a vertical pipe run.

DEWATERING SYSTEMS

PISTA® Grit Removal System



Smith & Loveless Inc.
Above All Others.™

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Smith &
Loveless, Inc.®

14040 Santa Fe Trail Drive
Lenexa, Kansas 66215-1284

PISTA® DURALYTE®
Grit Concentrator
500 GPM (31.6 lps),
2-Piece Assembly
Outline Drawing 67B346
August 2012
Page M7

- NOTES:
1. MATERIALS:
UPPER CASTING - NI-HARD
LOWER CONE - DURALYTE®
2. TOTAL WEIGHT: 20 LBS.
CONE WEIGHT: 20 LBS.
3. COPYRIGHT (C) 2008, 2011 SMITH & LOVELESS INC.

REDRAWN PER REVISION A 67B346/A

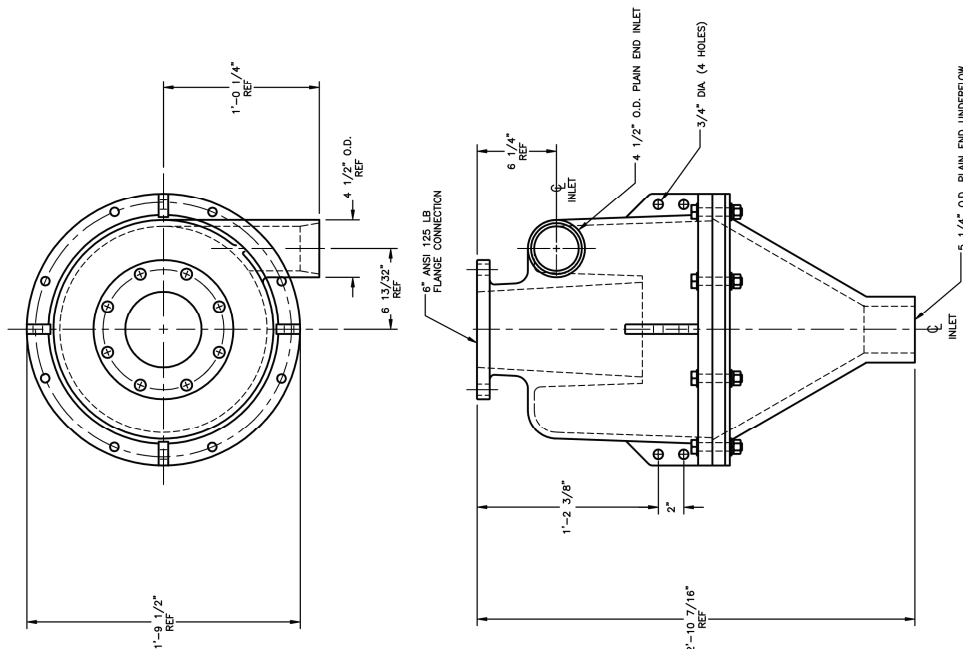
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11/20/08	FT	1	INITIAL DESIGN
02/20/11	FT	2	REVISED FOR MANUFACTURING
08/01/12	FT	3	REVISED FOR MANUFACTURING

FOR: 500 GPM PISTA® DURALYTE® GRIT CONCENTRATOR NI-HARD/ DURALYTE®

SCALE: 1=1

REV A

SMITH & LOVELESS, INC.



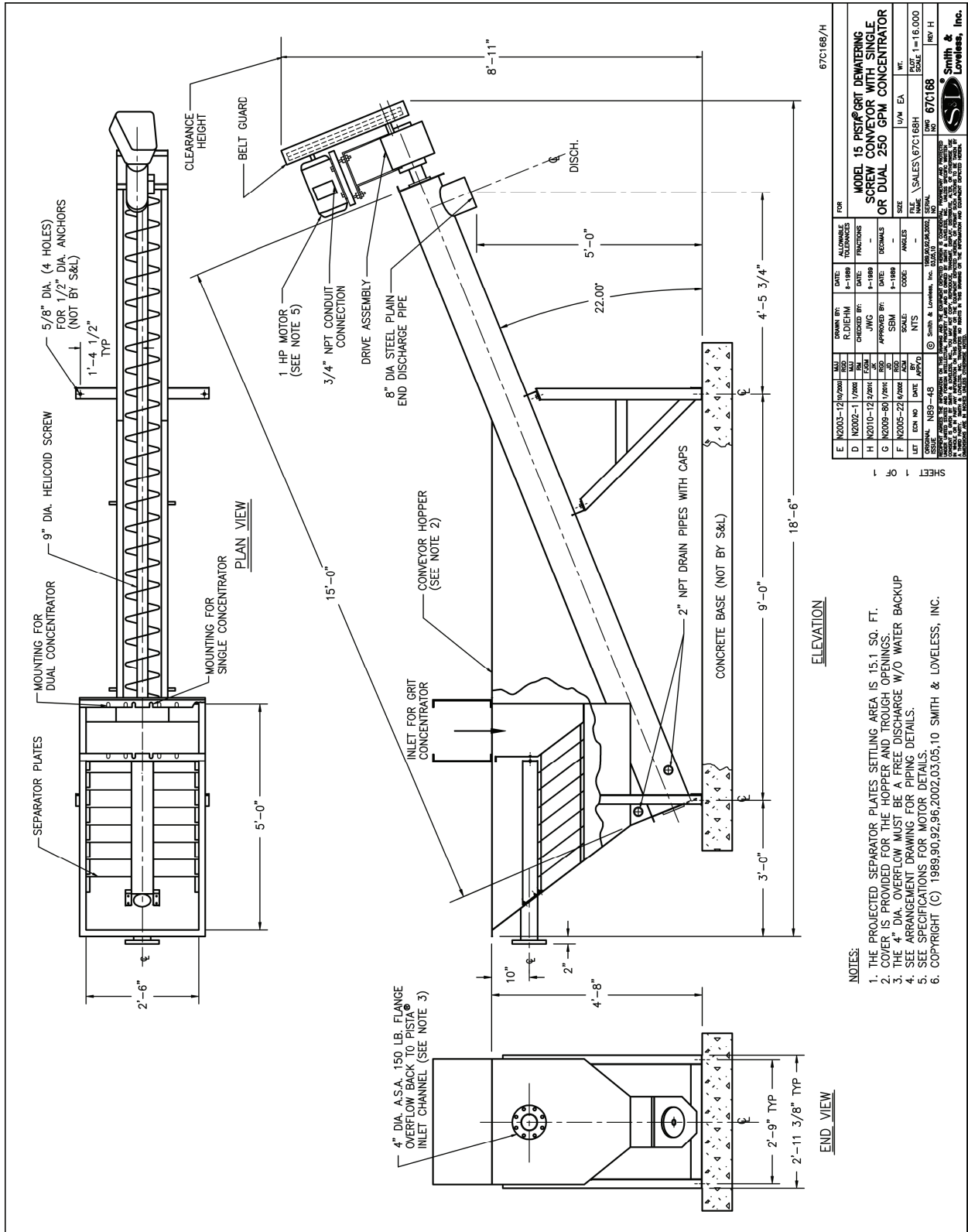
ENGINEERING DATA



Smith & Loveless, Inc.®

14040 Santa Fe Trail Drive
Lenexa, Kansas 66215-1284

PISTA® Grit Dewatering Screw Conveyor, Model 15 with Single or Dual 250 GPM (15.8 lbs) PISTA® Grit Concentrator
Outline Drawing 67C168
August 2012
Page M8



NO.	DATE	BY	CHKD.	APP'D.	SCALE	DESCRIPTION
E	12/03/12	JWG	JWG	JWG	1/8" = 1'-0"	REVISED FOR 15.8 LBS GPM
D	12/02/11	JWG	JWG	JWG	1/8" = 1'-0"	REVISED FOR 15.8 LBS GPM
H	12/01/12	JWG	JWG	JWG	1/8" = 1'-0"	REVISED FOR 15.8 LBS GPM
G	12/08/09	JWG	JWG	JWG	1/8" = 1'-0"	REVISED FOR 15.8 LBS GPM
F	12/05/02	JWG	JWG	JWG	1/8" = 1'-0"	REVISED FOR 15.8 LBS GPM
L	12/05/02	JWG	JWG	JWG	1/8" = 1'-0"	REVISED FOR 15.8 LBS GPM

FOR	DATE	BY	CHKD.	APP'D.	SCALE	DESCRIPTION
MODEL 15 PISTA® GRIT DEWATERING SCREW CONVEYOR WITH SINGLE OR DUAL 250 GPM CONCENTRATOR	12/03/12	JWG	JWG	JWG	1/8" = 1'-0"	REVISED FOR 15.8 LBS GPM

- NOTES:
1. THE PROJECTED SEPARATOR PLATES SETTLING AREA IS 15.1 SQ. FT.
 2. COVER IS PROVIDED FOR THE HOPPER AND TROUGH OPENINGS.
 3. THE 4" DIA. OVERFLOW MUST BE A FREE DISCHARGE W/O WATER BACKUP.
 4. SEE ARRANGEMENT DRAWING FOR PIPING DETAILS.
 5. SEE SPECIFICATIONS FOR MOTOR DETAILS.
 6. COPYRIGHT (C) 1989,90,92,96,2002,03,05,10 SMITH & LOVELESS, INC.



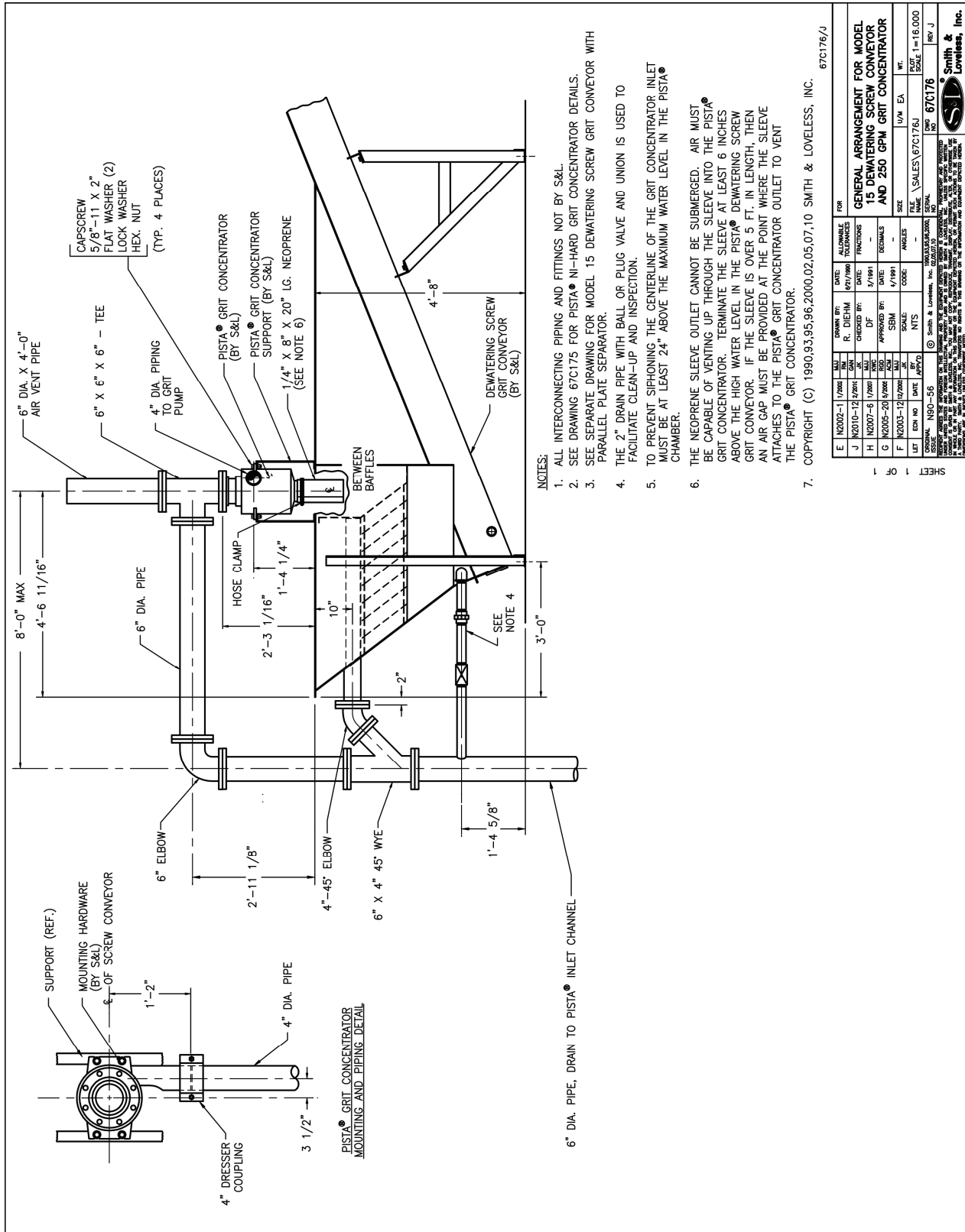
ENGINEERING DATA



Smith &
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14040 Santa Fe Trail Drive
Lenexa, Kansas 66215-1284

PISTA® Grit Screw Conveyor
Model 15 & PISTA® 250 GPM
(15.8 lps) Grit Concentrator
Arrangement Drawing 67C176
August 2012
Page M10



NOTES:

1. ALL INTERCONNECTING PIPING AND FITTINGS NOT BY S&L.
2. SEE DRAWING 67C175 FOR PISTA® NI-HARD GRIT CONCENTRATOR DETAILS.
3. SEE SEPARATE DRAWING FOR MODEL 15 DEWATERING SCREW GRIT CONVEYOR WITH PARALLEL PLATE SEPARATOR.
4. THE 2" DRAIN PIPE WITH BALL OR PLUG VALVE AND UNION IS USED TO FACILITATE CLEAN-UP AND INSPECTION.
5. TO PREVENT SIPHONING THE CENTERLINE OF THE GRIT CONCENTRATOR INLET MUST BE AT LEAST 24" ABOVE THE MAXIMUM WATER LEVEL IN THE PISTA® CHAMBER.
6. THE NEOPRENE SLEEVE OUTLET CANNOT BE SUBMERGED. AIR MUST BE CAPABLE OF VENTING UP THROUGH THE SLEEVE INTO THE PISTA® GRIT CONCENTRATOR. TERMINATE THE SLEEVE AT LEAST 6 INCHES ABOVE THE HIGH WATER LEVEL IN THE PISTA® DEWATERING SCREW GRIT CONVEYOR. IF THE SLEEVE IS OVER 5 FT. IN LENGTH, THEN AN AIR GAP MUST BE PROVIDED AT THE POINT WHERE THE SLEEVE ATTACHES TO THE PISTA® GRIT CONCENTRATOR OUTLET TO VENT THE PISTA® GRIT CONCENTRATOR.
7. COPYRIGHT (C) 1990,93,95,96,2000,02,05,07,10 SMITH & LOVELESS, INC.

67C176/J

REV	DATE	BY	CHKD	APPD	DESCRIPTION
E	N2002-11/2002	WJ	R. DIEHM		ALLOWANCE TOLERANCES
J	N2010-12/2010	WJ	DF		3/16H
H	N2007-6/1/2007	WJ			DECIMALS
G	N2005-20/2005	WJ			3/16H
F	N2003-12/2003	WJ			3/16H
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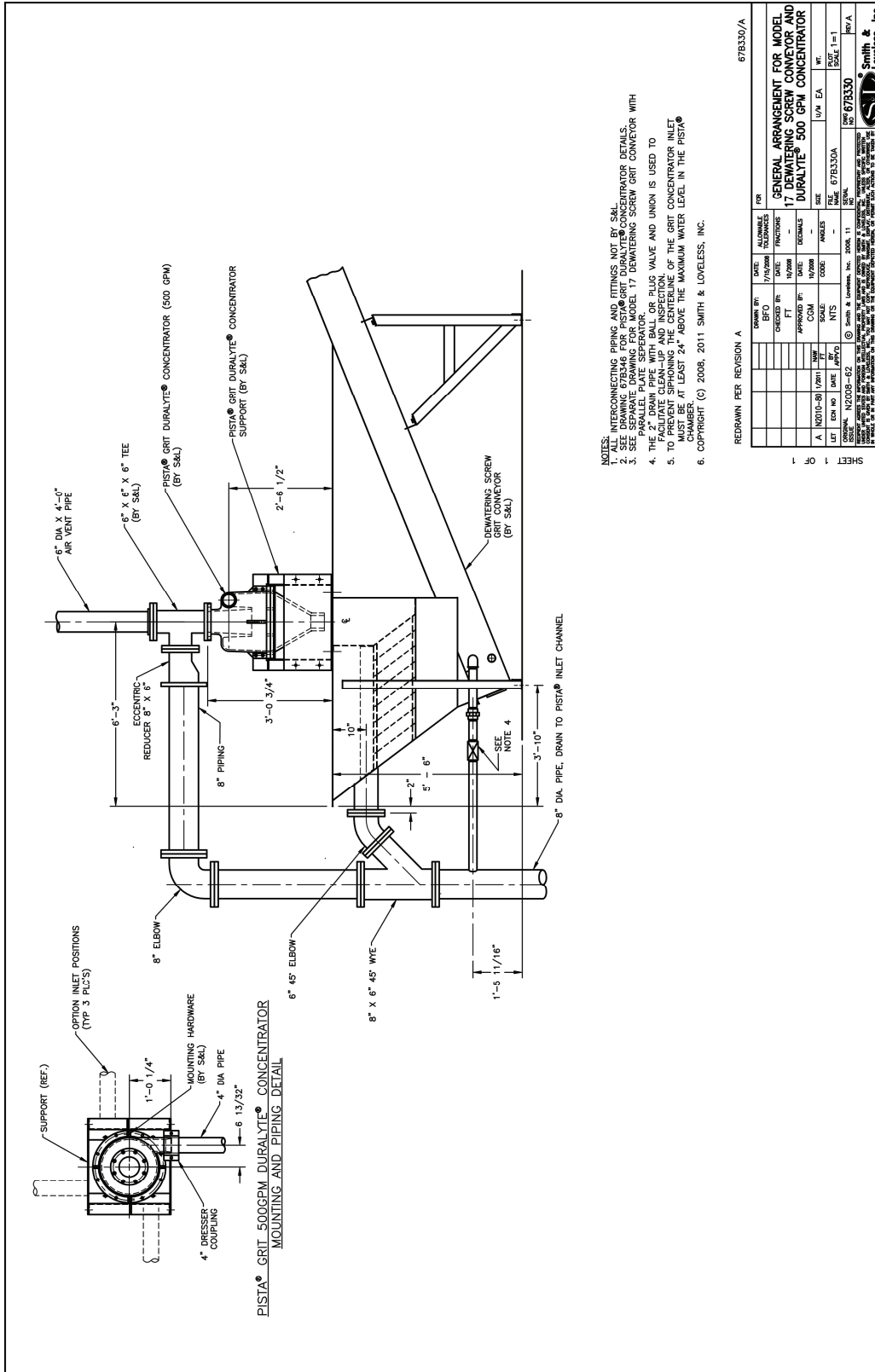
ENGINEERING DATA



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14040 Santa Fe Trail Drive
Lenexa, Kansas 66215-1284

PISTA® Grit Screw Conveyor
Model 17 & PISTA® 500 GPM
(31.6 lbs) DURALYTE®
Grit Concentrator
Arrangement Drawing 67B330
August 2012
Page M12



- NOTES:
1. ALL INTERCONNECTING PIPING AND FITTINGS NOT BY S&L.
 2. SEE DRAWING 67B346 FOR PISTA® GRIT DURALYTE® CONCENTRATOR DETAILS.
 3. SEE DRAWING 67B346 FOR PISTA® GRIT DURALYTE® CONCENTRATOR WITH PARALLEL PLATE SEPARATOR.
 4. THE 2" DRAIN PIPE WITH BALL OR PLUG VALVE AND UNION IS USED TO REMOVE SLUDGE AND PREVENT CLOGGING OF THE GRIT CONCENTRATOR INLET.
 5. TO PREVENT SPANNING THE CENTERLINE OF THE GRIT CONCENTRATOR INLET CHAMBER, THE 2" DRAIN PIPE MUST BE AT LEAST 24" ABOVE THE MAXIMUM WATER LEVEL IN THE PISTA® CHAMBER.
 6. COPYRIGHT (C) 2008, 2011 SMITH & LOVELESS, INC.

67B330/A

REDRAWN PER REVISION A

REV	DATE	BY	DESCRIPTION
1	08/11/12	SM	ISSUE FOR CONSTRUCTION

DESIGN BY	DATE	FOR
SM	08/11/12	GENERAL ARRANGEMENT FOR MODEL 17 DEWATERING SCREW CONVEYOR AND DURALYTE® 500 GPM CONCENTRATOR

CHECKED BY	DATE	FRACIONS
SM	08/11/12	-

APPROVED BY	DATE	DECIMALS
SM	08/11/12	-

LET	ENR NO	DATE	APPROVED BY	FILE	SCALE	WT.
A	102010-30	10/2011	SM	67B330A	1=1	

ORIGINAL: 102009-42 © Smith & Loveless, Inc. 2008, 11
 PISTA® GRIT 500 GPM DURALYTE® CONCENTRATOR MOUNTING AND PIPING DETAIL
 DRAWING NO. 67B330/A
 SHEET 1 OF 1



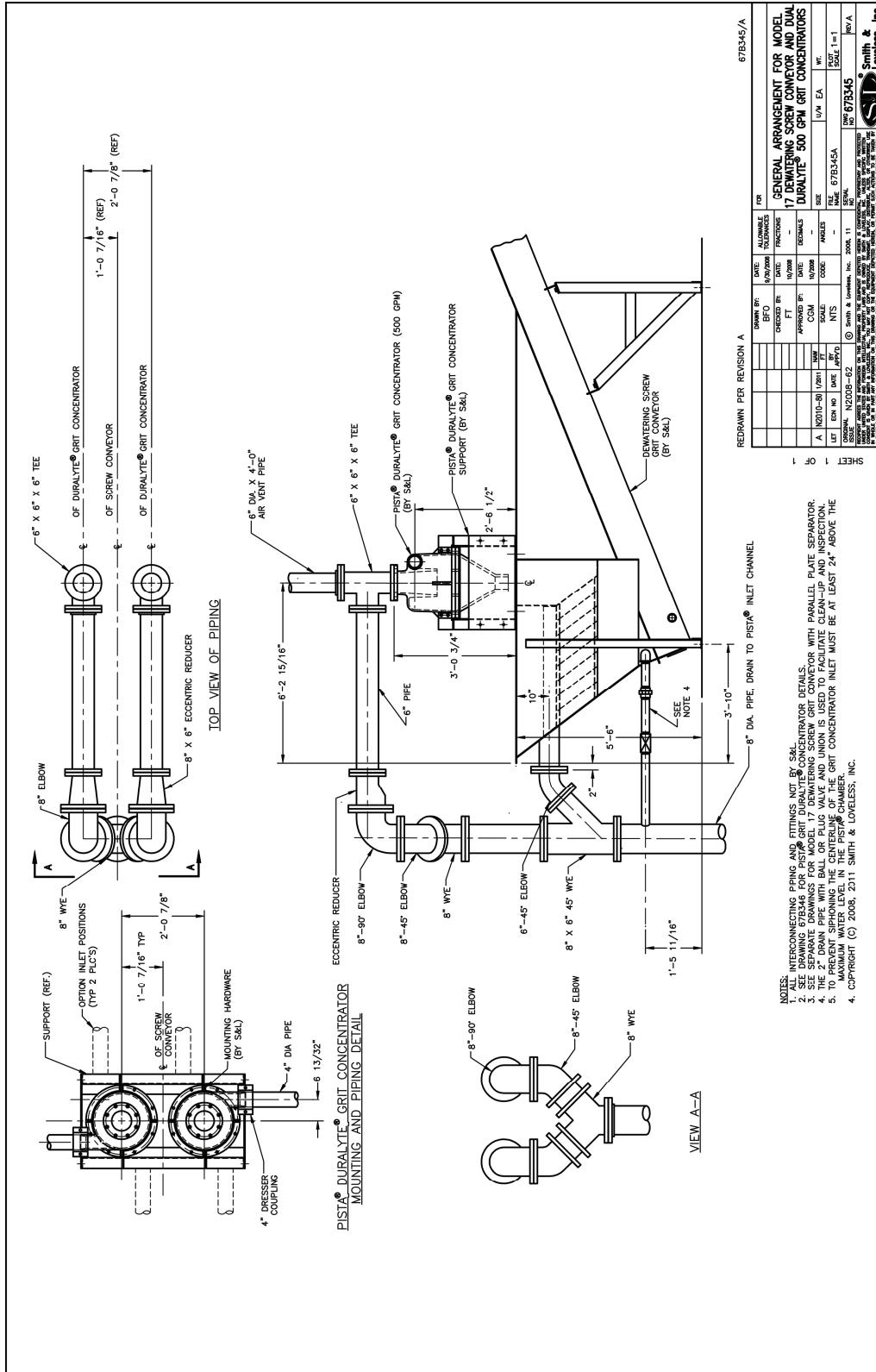
ENGINEERING DATA



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14040 Santa Fe Trail Drive
Lenexa, Kansas 66215-1284

PISTA® Grit Screw Conveyor
Model 17 & PISTA® Dual
500 GPM (31.6 lps)
DURALYTE®
Grit Concentrators
Arrangement Drawing 67B345
August 2012
Page M13



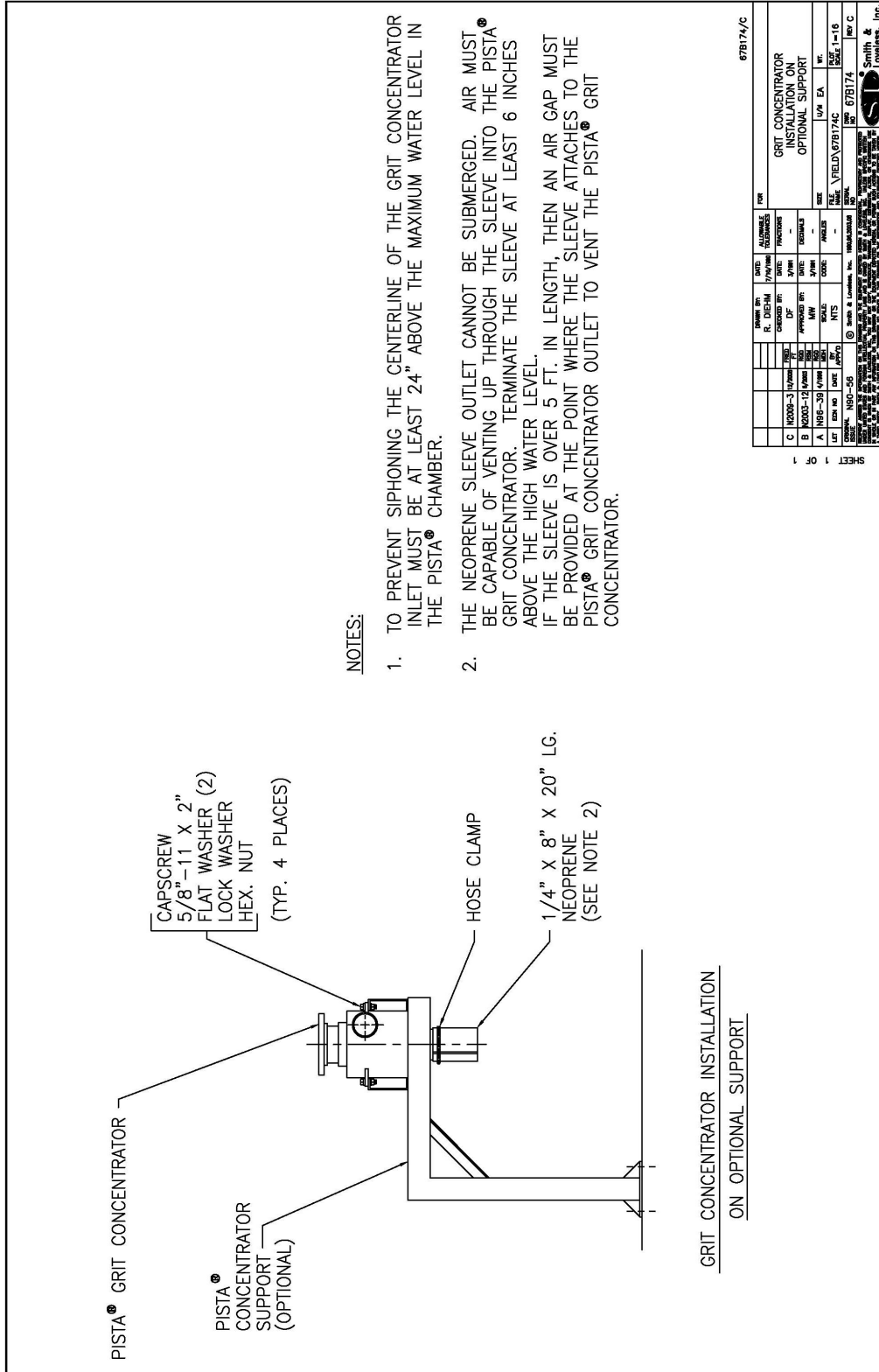
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Lenexa, Kansas 66215-1284

PISTA® Grit Concentrator
Installation on Screw Conveyor
Optional Support
Arrangement Drawing 67B174
August 2012
Page M14



NOTES:

1. TO PREVENT SIPHONING THE CENTERLINE OF THE GRIT CONCENTRATOR INLET MUST BE AT LEAST 24" ABOVE THE MAXIMUM WATER LEVEL IN THE PISTA® CHAMBER.
2. THE NEOPRENE SLEEVE OUTLET CANNOT BE SUBMERGED. AIR MUST BE CAPABLE OF VENTING UP THROUGH THE SLEEVE INTO THE PISTA® GRIT CONCENTRATOR. TERMINATE THE SLEEVE AT LEAST 6 INCHES ABOVE THE HIGH WATER LEVEL. IF THE SLEEVE IS OVER 5 FT. IN LENGTH, THEN AN AIR GAP MUST BE PROVIDED AT THE POINT WHERE THE SLEEVE ATTACHES TO THE PISTA® GRIT CONCENTRATOR OUTLET TO VENT THE PISTA® GRIT CONCENTRATOR.

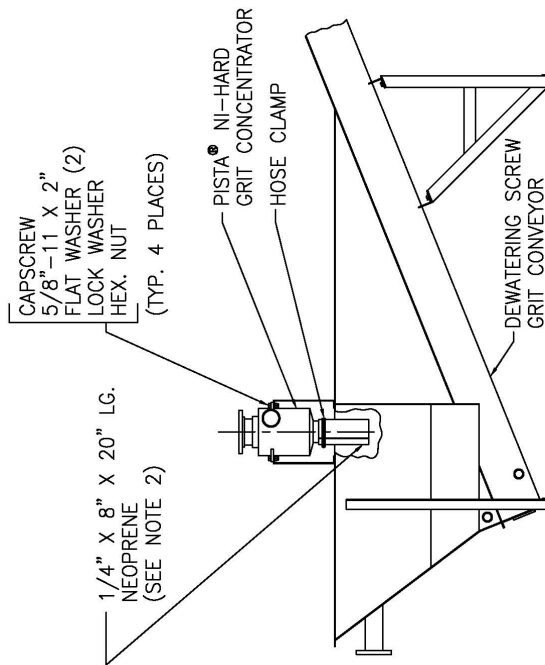
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Lenexa, Kansas 66215-1284

PISTA® Grit Concentrator
Installation on Model 15
PISTA® Dewatering Screw Grit
Conveyor / 250 GPM (15.8 lps)
Arrangement Drawing 67B173
August 2012
Page M15



NOTES:

1. THE CENTERLINE OF THE GRIT CONCENTRATOR INLET MUST BE AT LEAST 24" ABOVE THE MAXIMUM WATER LEVEL IN THE PISTA® CHAMBER TO PREVENT SIPHONING.
2. THE NEOPRENE SLEEVE OUTLET CANNOT BE SUBMERGED. AIR MUST BE CAPABLE OF VENTING UP THROUGH THE SLEEVE INTO THE PISTA® GRIT CONCENTRATOR. TERMINATE THE SLEEVE AT LEAST 6 INCHES ABOVE THE HIGH WATER LEVEL IN THE PISTA® DEWATERING SCREW GRIT CONVEYOR.
IF THE SLEEVE IS OVER 5 FT. IN LENGTH, THEN AN AIR GAP MUST BE PROVIDED AT THE POINT WHERE THE SLEEVE ATTACHES TO THE PISTA® GRIT CONCENTRATOR OUTLET TO VENT THE PISTA® GRIT CONCENTRATOR.

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PISTA® TURBO™ GRIT WASHER

PISTA® Grit Removal System



Smith & Loveless Inc.
Above All Others.™

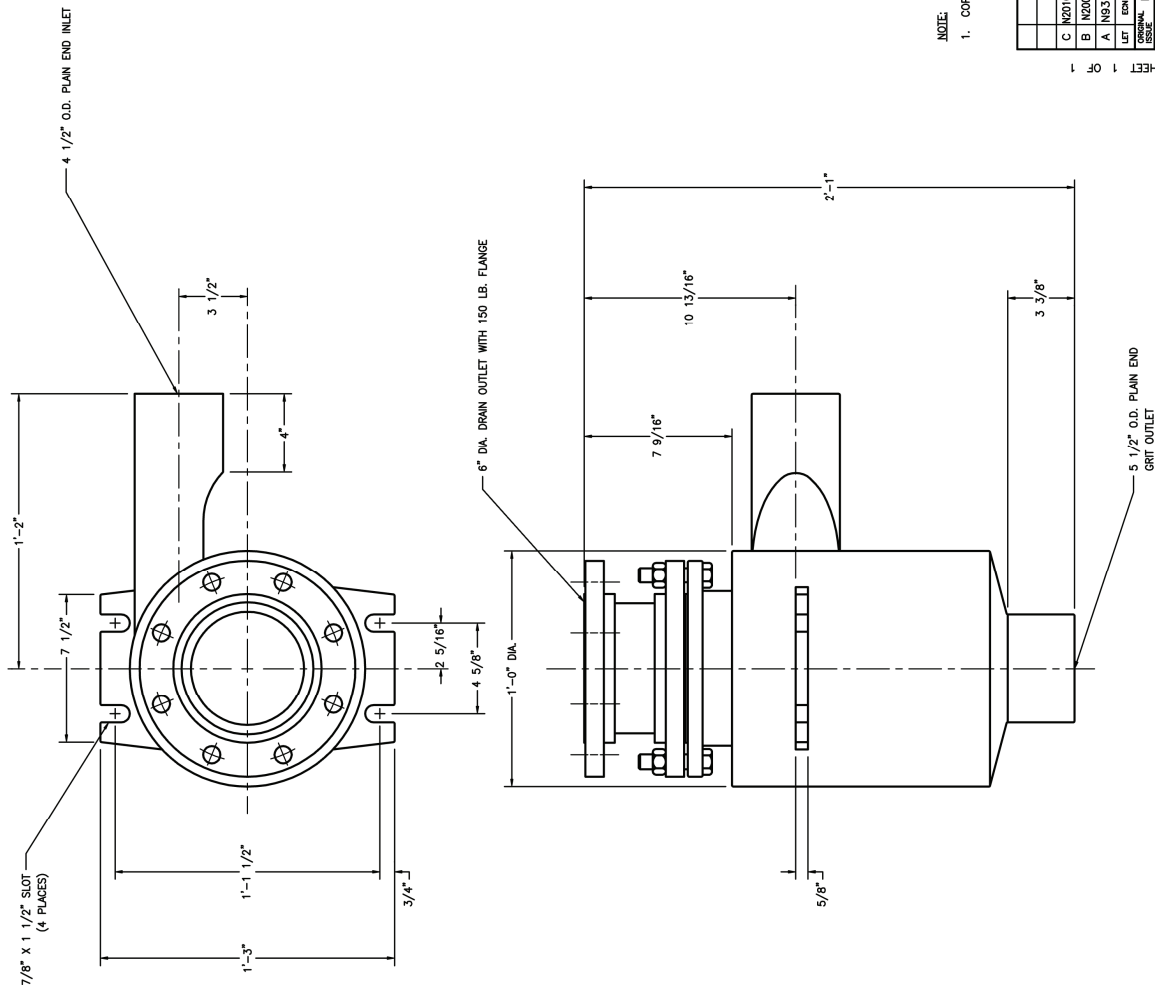
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Smith &
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14040 Santa Fe Trail Drive
Lenexa, Kansas 66215-1284

PISTA® Grit Concentrator
250 GPM (15.8 lps),
Second-Stage
Outline Drawing 67C175
August 2012
Page M16



NOTE:
1. COPYRIGHT (c) 1990, 2002 SMITH & LOVELESS, INC.

DRAWN BY		DATE	ALL DIMENSIONS	FOR	SCALE	REV
R. DIEHM		6/10/1990	FRACTIONS	250 GPM SECOND-STAGE	1/4" = 1'-0"	1
D. FISHER		5/1/1991	DECIMALS	PISTA® GRIT CONCENTRATOR	1/4" = 1'-0"	2
S.M.		1/1/1991	ANGLES	NI-HARD	1/4" = 1'-0"	3
C	M2010-278/2011					
B	M2002-11/2008					
A	M203-36/1/1991					
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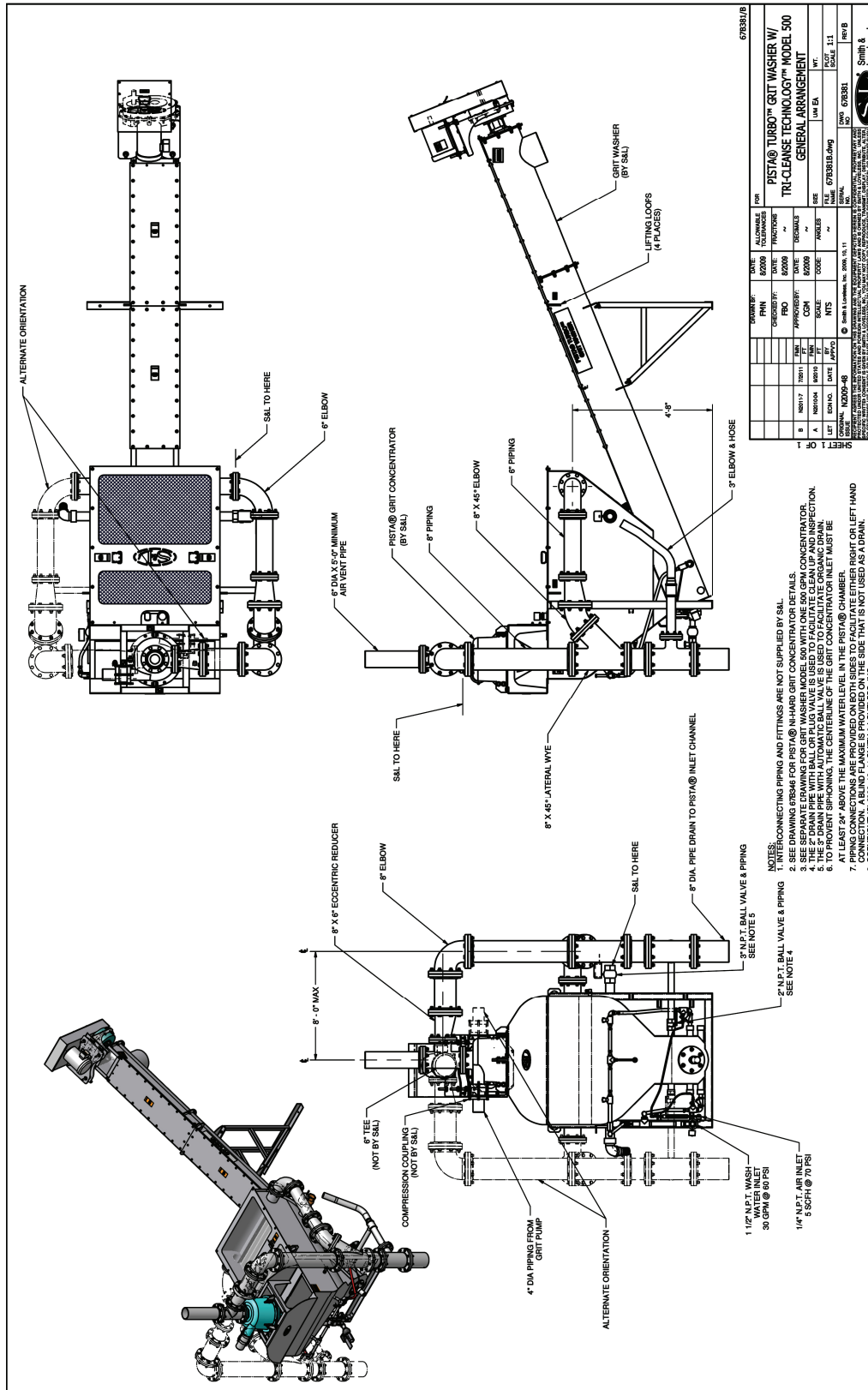
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Smith &
Loveless, Inc.®

14040 Santa Fe Trail Drive
Lenexa, Kansas 66215-1284

PISTA® TURBO™ Grit Washer
with TRI-CLEANSE
TECHNOLOGY™ with Model
500 Concentrator
Arrangement Drawing 67B381
August 2012
Page M21



REV	DATE	BY	CHKD	APP'D	DESCRIPTION
1	08/08/12	SM	SM	SM	ISSUED FOR CONSTRUCTION
2	08/08/12	SM	SM	SM	REVISED TO ADD ALTERNATE ORIENTATION

DATE	08/08/12	BY	SM	CHKD	SM	APP'D	SM
SCALE	AS SHOWN	TITLE	PISTA® TURBO™ GRIT WASHER W/ TRI-CLEANSE TECHNOLOGY™ MODEL 500 GENERAL ARRANGEMENT				
PROJECT	67B381	DRAWING NO.	67B381.01				
REV	1	DATE	08/08/12				

- NOTES:
- INTERCONNECTING PIPING AND FITTINGS ARE NOT SUPPLIED BY SAL.
 - SEE DRAWING 67B46 FOR PISTA® N-HARD GRIT CONCENTRATOR DETAILS.
 - SEE SEPARATE DRAWING FOR GRIT WASHER MODEL 500 WITH ONE 500 GPM CONCENTRATOR.
 - THE 5\"/>

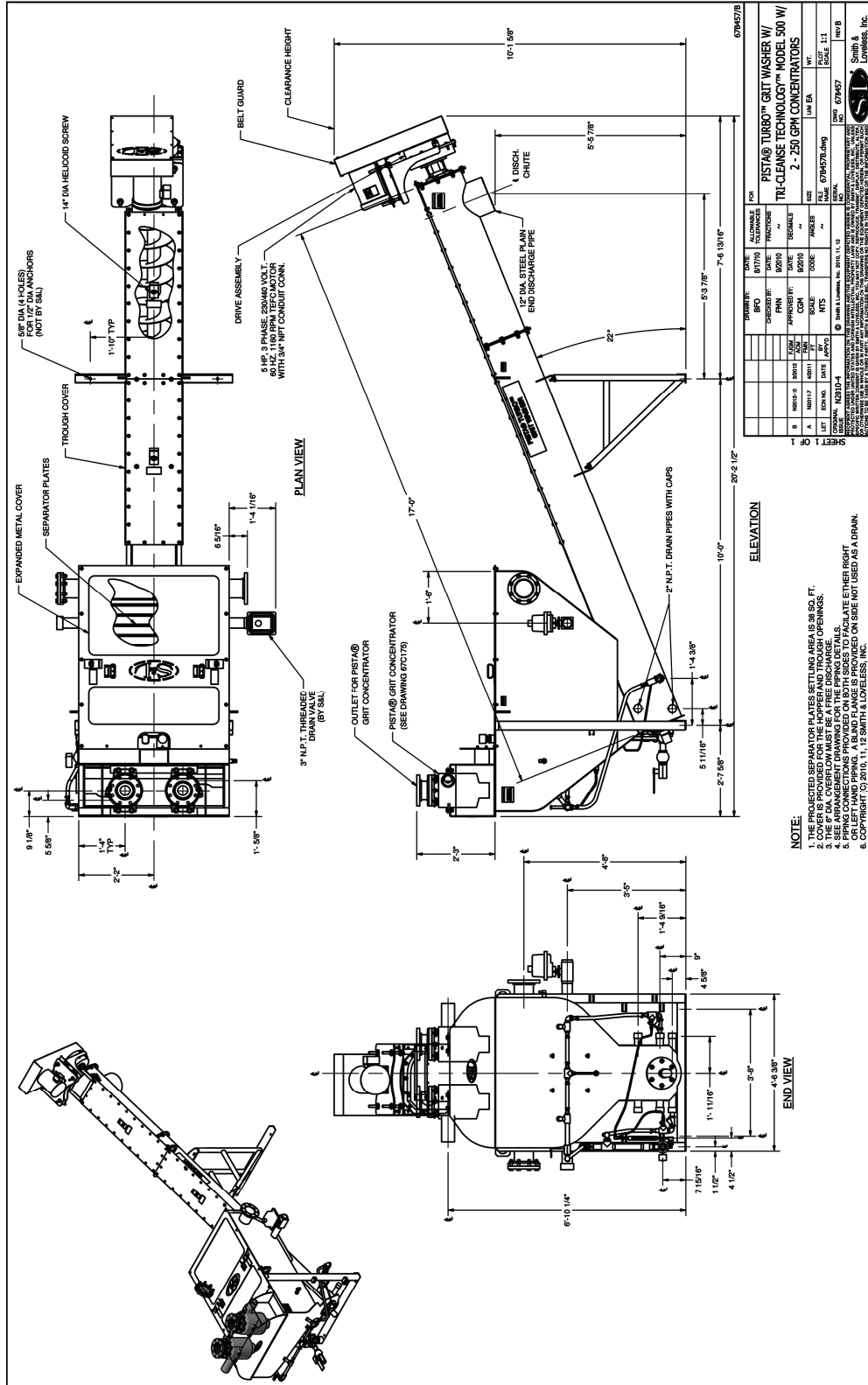
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Lenexa, Kansas 66215-1284

PISTA® TURBO™ Grit Washer
with TRI-CLEANSE
TECHNOLOGY™ with
Dual Grit Concentrator on
Single Model 500
Outline Drawing 67B457
August 2012
Page M22



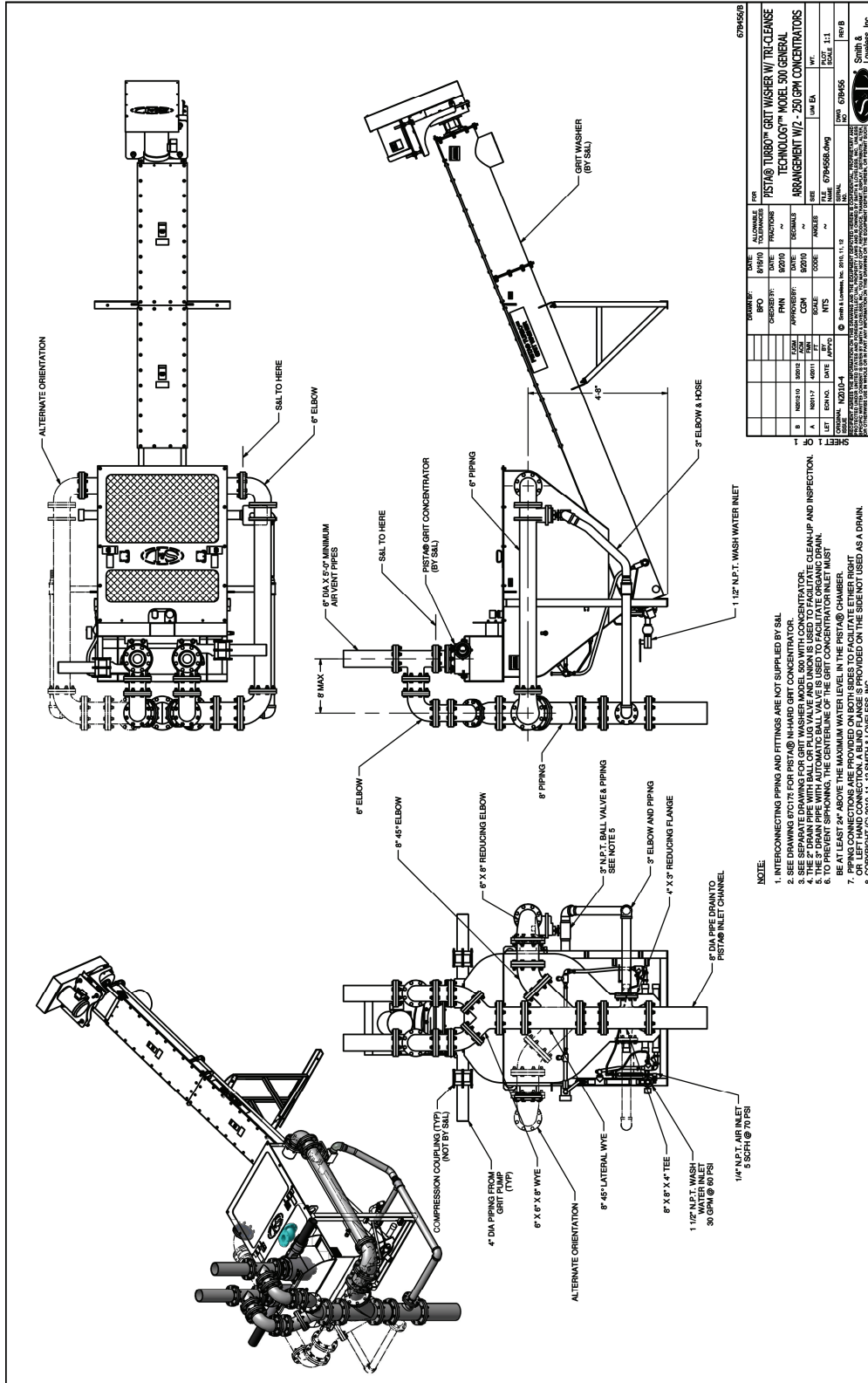
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Lenexa, Kansas 66215-1284

PISTA® TURBO™ Grit Washer
with TRI-CLEANSE
TECHNOLOGY™ with
Dual Grit Concentrator on
Single Model 500
Arrangement Drawing 67B456
August 2012
Page M23



DATE	DESCRIPTION	BY	CHKD	APP'D
08/21/12	REVISED FOR PISTAB TURBO™ Grit Washer w/ TRI-CLEANSE TECHNOLOGY™ MODEL 500 GENERAL ARRANGEMENT W/ 250 GPM CONCENTRATORS	SM	SM	SM
08/21/12	REVISED FOR PISTAB TURBO™ Grit Washer w/ TRI-CLEANSE TECHNOLOGY™ MODEL 500 GENERAL ARRANGEMENT W/ 250 GPM CONCENTRATORS	SM	SM	SM
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08/21/12	REVISED FOR PISTAB TURBO™ Grit Washer w/ TRI-CLEANSE TECHNOLOGY™ MODEL 500 GENERAL ARRANGEMENT W/ 250 GPM CONCENTRATORS	SM	SM	SM
08/21/12	REVISED FOR PISTAB TURBO™ Grit Washer w/ TRI-CLEANSE TECHNOLOGY™ MODEL 500 GENERAL ARRANGEMENT W/ 250 GPM CONCENTRATORS	SM	SM	SM

NOTE:

- INTERCONNECTING PIPING AND FITTINGS ARE NOT SUPPLIED BY SAL.
- SEE DRAWING 67C17 FOR PISTAB IN-HARD GRIT CONCENTRATOR.
- THE 2" DRAIN PIPE WITH BALL OR PLUG VALVE AND UNION IS USED TO FACILITATE CLEAN-UP AND INSPECTION.
- TO PREVENT SPRINKLING, THE CENTERLINE OF THE GRIT CONCENTRATOR INLET MUST BE AT LEAST 24" ABOVE THE MAXIMUM WATER LEVEL IN THE PISTAB CHAMBER.
- PIPING CONNECTIONS ARE PROVIDED ON BOTH SIDES TO FACILITATE EITHER RIGHT OR LEFT ORIENTATION. CONNECTIONS PROVIDED ON THE SIDE NOT USED AS A DRAIN.
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