

City of Santa Rosa Laguna WWTP
Attn: Tanya Mokvyts, Water Reuse Engineer



Headworks Screens Maintenance Project



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1. MISCOwater Collaborative Delivery Solutions



Furnish & Installation

Delivering working, integrated systems utilizing technologies that provide effective water treatment solutions

MISCOwater is focused on applying the best water and wastewater treatment solutions to our industry's greatest water treatment challenges in partnership with you.

Provide municipalities a cost effective way to implement small to medium sized projects involving installation of new equipment or replacement/rehabilitation of existing equipment.

Complete projects faster than most project procurement mechanisms.

Provide owners with a Project Manager that is a single point-of-contact for successful project implementation.

Contract with manufacturers that use common design and engineering tools to minimize project costs.

Encourage owner participation in the selection of the installer/contractor to foster collaboration and partnership.

Include options for financing, system maintenance, and long-term support.

2. Project Summary

The City of Santa Rosa currently owns and operates a headworks that is critically responsible for providing primary treatment to incoming raw sewage from a regional collection system at the Laguna Wastewater Treatment Plant. The headworks process is principally comprised of four (4) Andritz Aqua-screen finescreens residing in four (4) individual channels. A visual inspection was performed by a licensed Andritz aftermarket technician in June 2018. Inspection indicated that while City maintenance staff have followed preventive maintenance protocol very well, all four (4) screens needed additional specialty maintenance.

The visual inspection indicated that the screens were not operating at their optimum efficiency allowing material to bypass the process with a possible negative impact on downstream processes. The drive assemblies and cleaning brushes were also found to be in poor condition. The City of Santa Rosa elected to purchase nearly all required parts for the maintenance of these screens in late 2018. Given the nature of the complex replacement procedure, the City approached Andritz and MISCOwater to complete this work.

As Andritz's sole factory representative in Northern California, MISCOwater is proposing to furnish the remaining parts (new main drive assembly and refurbished assemblies) and provide the speciality installation labor necessary to complete this routine maintenance so that the City may continue to operate its headworks process at the Laguna Treatment Facility.

3. Scope of Work

Project Overview: All four (4) headworks screens shall be sequentially brought out of service to replace worn parts utilizing factory authorized service technicians.

Scope of Work - Mobilization No. 1

1. Isolate Channel Nos. 1 and 2 closing upstream and downstream gates.
2. Take Screen Nos. 1 and 2 out of operation.
3. Remove main drive assembly on Screen No. 1 and send to Andritz factory for refurbishment.
4. Replace main drive assembly with new assembly on Screen No. 1.
5. Remove and replace wear items with purchased parts on Screen Nos. 1 and 2.
6. Remove main drive assembly on Screen No. 2 and send to Andritz factory for refurbishment.
7. Put Screen No. 1 back into operation.
8. Isolate Channel Nos. 3 and 4 closing upstream and downstream gates.
9. Take Screen Nos. 3 and 4 out of operation.
10. Remove main drive assembly on Screen Nos. 3 and 4 and send to Andritz factory for refurbishment.
11. Remove and replace wear items with purchased parts on Screen Nos. 3 and 4.

Scope of Work - Mobilization No. 2

1. Install refurbished or new main drive assembly on Screen Nos. 2, 3, and 4, depending on condition analysis results from factory.
2. Store refurbished (if possible) main drive assembly from Screen No. 1 as a complete shelf spare.
3. Put Screen Nos. 2, 3, and 4 back into operation.

See APPENDIX A for Andritz Parts Manual indicating general parts and assemblies that shall be replaced.

NOTES:

- City of Santa Rosa to provide channels isolated and cleaned. No provisions included to isolate, clean, or provide bypass pumping.
- City of Santa Rosa must keep channels dry during duration of each screen maintenance tasks.
- City of Santa Rosa to provide all rigging and hoisting to complete necessary work.
- Provide Confined Space Entry Equipment (where necessary) and PPE. Proposal includes allowance for a hole watch, gas monitoring, ventilation and retrieval device, if necessary.
- City of Santa Rosa shall provide dumpsters or other disposal method to remove all debris and demolished equipment from the work site.
- MISCOwater shall provide all necessary tools to complete the work.
- Work to be performed in two (2) mobilizations. First mobilization is comprised of 2 field technicians working 10 straight 10 hour days, including weekend work. Second mobilization comprised of 2 field technicians working 4 straight 10 hour days.

This scope of work excludes the following items:

- Permits, fees, and/or stamped engineering documents.
- No allowances have been included for snow removal and winter work.
- Offloading and/or storage of replacement parts if delivered when crew is not onsite.
- Assumes adequate lay down and access to work site.
- Installation of (non identified) piping, equipment supports and/or electrical.
- City of Santa Rosa to make all reasonable precautions to make safe work space.
- Hazardous material handling or disposal.
- No allowances have been made for Project Labor Agreements (PLA's) or similar requirements. All labor is classifier as speciality maintenance and is not listed as a skilled trade that requires any classification by the Division of Industrial Relations (DIR) and thus no certified payroll is included in this work.
- Any work not specifically included.

4. Scope of Supply

Andritz Aqua-screen Finescreen Screening System



Screening System

Main Drive Shaft Assembly - DMM28653-LH/RH-XL

<u>Part Number</u>	<u>Description</u>	<u>Quantity</u>
DMM28 654-XL	DRIVE SHAFT WELD.,5hp,AQS1200	1
DMM28657-XL	SAFETY COVER DRIVE MOTOR	2
DMM28656-LH-XL	TORQUE ARM, LH, 5HP, AQS1200	1
DMM28658-XL	DRIVE MOTOR SAFETY COVER SPRT	2
DMM24413	BRG. HOUSING ASSY, OPEN, MAIN	1
DMM24414	BRG. HOUSING ASSY, CLOSED, MAIN	1
DMM24419-XL	DRIVE WASHER	6
975SXM56X1000	ALL THREAD MS 6, 316L SST	2
934SXM56	HEX NUT, M56 X 5.5, 316SS	8
1481SXM16X90	SPRING PIN,DIA 16x90mm LG,316S	2
933SXM24X75	HEX BOLT, M24 X 75 316SS	1
125SXM24	FLATWASHER M24 316SS	2
127SXM24	LOCKWASHER M24 316SS	1
934SXM24	HEX NUT M24 316SS	1
933SXM06X16	HEX BOLT M6 X 16, 316SS	4
125SXM06	FLATWASHER M06 316SS	4
127SXM06	LOCKWASHER M06 316SS	4
975SXM16X165	ALL THREAD, M16 X 165 LG	15
125SXM16	FLATWASHER M16 316SS	30
127SXM16	LOCKWASHER M16 31	15
934SXM16	NEX NUT M16 316SS	30

NOTE: All remaining parts to complete project have already been purchased by the City of Santa Rosa.

5. Project Schedule

Purchase order received and accepted:	Timeline begins
First mobilization complete: <ul style="list-style-type: none">• Main Drive Assembly ordered and arrives on site (14 weeks)• First mobilization of installation technicians• Complete maintenance on Screen Nos. 1 and 2 (2 weeks)• Main drive assemblies from Screen Nos. 1 and 2 sent for refurbishment	Week 16
Second mobilization complete: <ul style="list-style-type: none">• Refurbished drive assemblies arrive on site (4 weeks)• Second mobilization of installation technicians• Complete maintenance on Screen Nos. 3 and 4 (2 weeks)	Week 24
Staff O&M training (1 day):	Week 24
Close Project:	Week 25



Project Reference List Wastewater Solutions

City of Watsonville Aeration Upgrade Project

Owner:	Watsonville 500 Clear Water Drive Watsonville, CA 95077 Phone: (831) 768-3170 Contact: Kevin Silvieri
Construction Partner:	GSE Construction Company 6950 Preston Ave Livermore, CA 94551 Phone: (925) 447-0292 Contact: Dennis Gutierrez
Project Amount:	\$530,000
Project Duration:	6 months
Project Team:	Mike Tooley Richard Gndt
Summary:	<ul style="list-style-type: none">• Upgraded existing Lamson multistage blower with APG Neuros turbo blower.• Upgraded coarse bubble diffusers in re-aeration and aeration basins with PTFE (Teflon) coated 9-inch disc diffusers.• Testing, commissioning, start up and training.



Project Reference List Wastewater Solutions

Silicon Valley Clean Water Aeration Upgrade Project

Owner: Silicon Valley Clean Water
1400 Radio Rd
Redwood City, CA 94065
Phone: (650) 591-7121
Contact: Arvind Akela, Chuck Fenton

Construction Partner: Monterey Mechanical Co.
8275 San Leandro St
Oakland, CA 94621
Phone: (510) 632-3173
Contact: Ed Moore

Project Amount: \$2,200,000

Project Duration: 2 weeks

Project Team: Mike Tooley
Dwight Craig
Richard Gnantt
Matt Tooley

Summary:

- Upgraded existing mechanical mixers with efficient Invent Mixer/ Aerators including drop leg air headers, air spargers, and integrated controls.
- SOTE Testing, commissioning, start up and training.



Project Reference List Wastewater Solutions

Woodland Water Pollution Control Facility Band Screen Installation

Owner: Woodland WPCF
42929 County Road 24
Woodland, CA 95776
Phone: (530) 661-20690
Contact: Chris Fong

Construction Partner: GSE Construction Company
6950 Preston Ave
Livermore, CA 94551
Phone: (925) 447-0292
Contact: Dennis Gutierrez

Project Amount: \$704,000

Project Duration: 6 months

Project Team: Mike Tooley
Richard Gmandt
Mark Humberstone

Summary:

- Installation of (2) band screens and (4) FRP headworks gates
- Removal of old equipment.
- Testing, commissioning, start up and training.



Project Reference List Wastewater Solutions

City of Carmel Methane Gas Scrubber Retrofit Project

Owner: Carmel Area Wastewater District
3945 Rio Rd.
Carmel-by-the-Sea, CA 93922
Phone: (831) 624-1248
Contact: Drew Lander

Construction Partner: GSE Construction Co.
6950 Preston Ave
Livermore, CA 94551
Phone: (925) 447-0292
Contact: Nelson Cooper

Project Amount: \$85,000

Project Duration: 2 weeks

Project Team: Mike Tooley
Matt Tooley

Summary:

- Rehabilitation of existing MARCAB H₂S methane gas scrubber system.
- Replaced iron sponge and carbon media.
- Replaced corroded valves and manual actuators.
- Recoated/painted vessels.
- Removal and disposal of spent media.
- Testing, commissioning, start up and training.

7. Firm Project Pricing

Project Cost	Complete maintenance on Headworks Screens Nos. 1, 2, 3, and 4	\$319,125.00
Project TOTAL		\$319,125.00

*freight and tax included

Terms and Conditions: As defined by MISCOwater standard Terms and Conditions.

Pricing Breakdown	
Main Drive Assembly (1)	\$40,560.00
Refurbish Main Drive Assemblies (3)	\$36,050.00
Freight - Dedicated freight for (2) main drive assemblies AND (1) main drive assembly (spare)	\$31,500.00
Mobilization I - 13 consecutive 10-hour work days (10 weekdays, 2 Saturdays, 1 Sunday)	\$97,750.00
Mobilization II - 13 consecutive 10-hour work days (10 weekdays, 2 Saturdays, 1 Sunday)	\$97,750.00
Project Administration/Management	\$15,515.00
Project TOTAL	\$319,125.00

*freight and tax included

Terms and Conditions: As defined by MISCOwater standard Terms and Conditions.

8. Terms and Conditions

MISCOWATER – TW ASSOCIATES TERMS & CONDITIONS OF SALE

1. ACCEPTANCE

When the Buyer signifies acceptance of this quotation by submission of a Purchase Order or signed MISCOWATER Quotation, it shall become a binding contract when accepted and signed by an authorized signer of the Seller (MISCOWATER). Any changes or amendments to this proposal made by the Buyer must have MISCOWATER's approval in writing to become a part of this contract.

2. DELIVERY

Any shipment or delivery date recited represents our best estimate, but no liability, direct or indirect, is assumed by MISCOWATER for failure to ship or deliver on such dates. Unless otherwise directed, MISCOWATER shall have the right to make early or partial shipments and invoices covering the same to Buyer shall be due and payable in accordance with payment terms hereof. FOB shall be origin.

3. APPROVAL DRAWINGS

Any preliminary drawings or literature attached to our quotation are for illustration purposes only to show approximate arrangements. Specific drawings and submittal data will be furnished for approval as required after receipt and acceptance of the Buyer's order. Fabrication of products or equipment ordered will not begin until approval and direction to proceed is received in writing.

4. PAYMENT

Payment terms, upon credit approval, are Net 30 Days from the date of each invoice issued for each partial or final shipment. Flowdown provisions are not accepted. Retention is not allowed. In the event any payment becomes past due, a charge of 1.5% will be assessed monthly.

5. TAXES AND BONDS

Taxes and bonds are NOT included in our pricing. Any applicable taxes or bonds will be added to the price and shown separately on each invoice.

6. CLAIMS AND BACKCHARGES

Buyer agrees to examine all materials immediately upon delivery and report to Seller (MISCOWATER) in writing any defects or shortages noted no later than 10 days following the date of receipt. The parties agree that if no such claim is made within said time, it shall be considered acceptable and in good order with respect to any defect or shortage which would have been revealed by such an inspection. In no event will MISCOWATER be responsible for any charge for modification, servicing, adjustment or for any other expense without written authorization from MISCOWATER prior to the performance of any such work.

7. SECURITY INTEREST & TITLE

Until all amounts due MISCOWATER have been paid in full, Seller shall retain a security interest in the product and have all rights of a secured party under the California Uniform Commercial Code, including the right to repossess the product or equipment without legal process.

8. WARRANTY

MISCOWATER warrants that the product furnished will be free from defects in material and workmanship when installed, operated and maintained under design conditions and in accordance with the manufacturer's written instructions. Warranties will expire (18) months after shipment or twelve (12) months after start-up, whichever occurs first. Expandable items such as filter or scrubber media are excluded from this warranty.

THIS WARRANTY, INCLUDING THE STATED REMEDIES, IS EXPRESSLY MADE BY SELLER AND ACCEPTED BY PURCHASER IN LIEU OF ALL OTHER WARRANTIES. SELLER MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE, WHICH EXTEND BEYOND THE DESCRIPTION OF THE PRODUCT HEREIN. SELLER WILL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL OR LIQUIDATED DAMAGES, AND IN NO EVENT SHALL BE LIABLE FOR ANY AMOUNT IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT PURCHASED ON THIS ORDER.

The foregoing is Seller's only obligation and Buyer's exclusive remedy for breach of warranty, and, except for gross negligence and willful misconduct, the foregoing is Buyer's exclusive remedy against Seller for all claims arising hereunder or relating hereto. Buyer's failure to submit a timely claim as provided shall specifically waive all claims for damages or other relief.

9. CANCELLATION

Should this order be cancelled, Buyer shall be obligated to pay for the level of work performed and products shipped. Work performed includes any engineering, calculations, preparation of submittals, drawings, and/or travel to job site in relation to this order.

10. FIELD WORK

Unless specifically stated on our quotation, installation, start-up service, supervision, operation and training are not included in our pricing of product.

11. COMPLETE AGREEMENT

These terms are intended by the parties as a final expression of their agreement and are intended also as a complete and exclusive statement of the terms of their agreement. No course or prior dealings between the parties and no usages of the trade shall be relevant to supplement or explain any term used in this agreement. This agreement supersedes all prior representations and agreements with respect to the matters set forth herein and may be modified only by a written agreement to and signed by each of the parties.

MISCOWATER: _____
 Title: _____
 Date: _____

By: _____
 Title: _____
 Date: _____

APPENDIX A

Andritz Parts Manual



**LANGUMA TREATMENT PLANT
SANTA ROSA, CA**

NO. 1643
1200X12200X6 AQUA-SCREEN®
PARTS MANUAL

APPROVED BY: 
REV A
18-Dec-18

ANDRITZ SEPARATION
1010 Commercial Blvd. S., Arlington, TX 76001
(817) 465-5611 FAX (817) 472-8589

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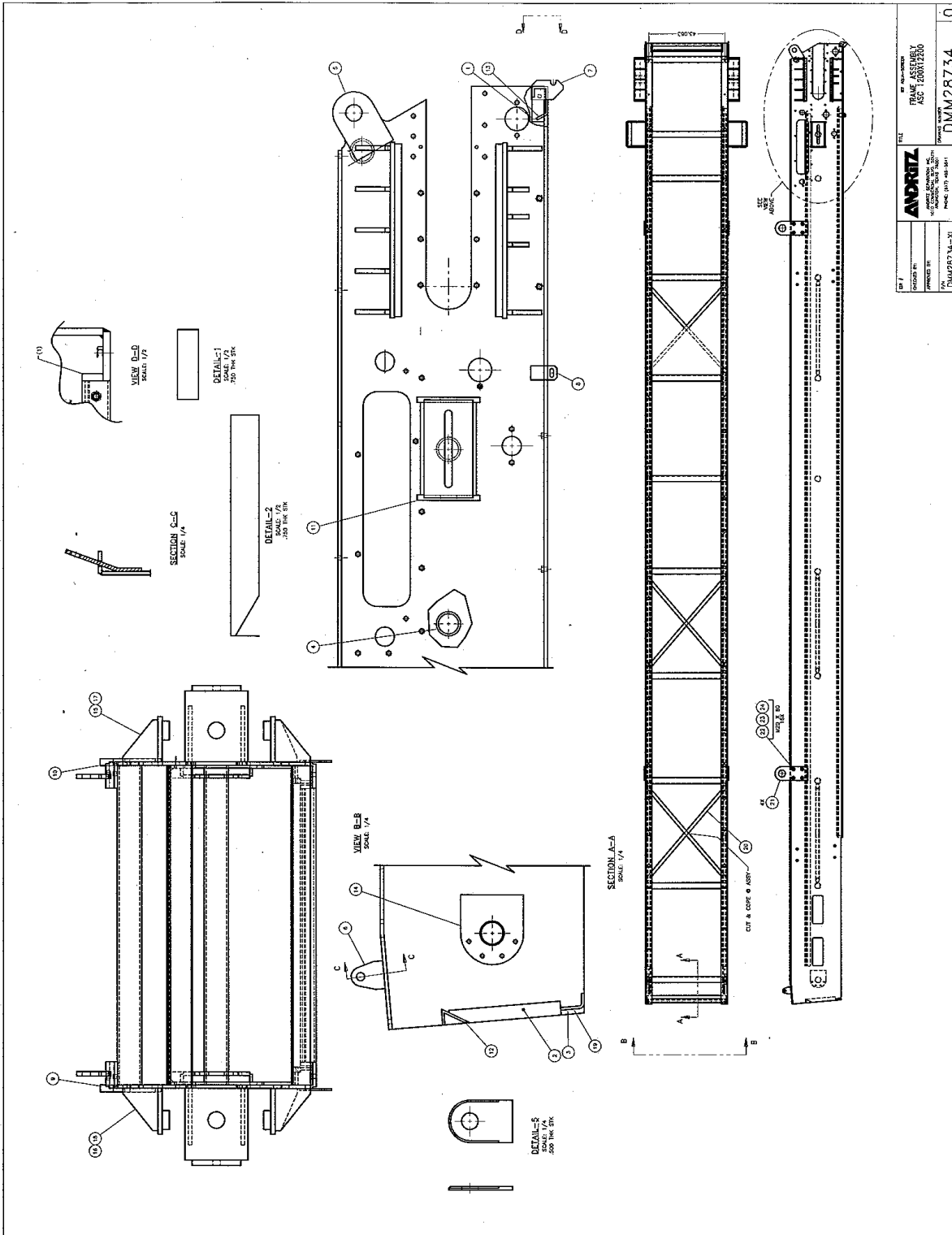
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DMM28775-XL	DMM28775	DISCHARGE COVER ASSEMBLY	6
DMM28653-LH/RH-XL	DMM28653	MAIN DRIVE ASSEMBLY	8
DMM28536-XL	DMM28536	SCREEN PANEL ASSEMBLY	10
DMM30523-LH/RH-XL	DMM30523	WASHING BRUSH ASSEMBLY	12
DMM28803-LH/RH-XL	DMM28803	SHOWER (SPRAY BAR) ASSEMBLY	14
DMM28736-XL	DMM28736	CHAIN RAIL ASSEMBLY	16
DMM28727-XL	DMM28727	SUPPORT BRACKET ASSEMBLY	18
DMM28814-XL	DMM28814	SEAL ASSEMBLY	20
		MOTOR DRIVE LIST	21
		RECOMMENDED SPARE PARTS LIST	22



Denotes parts already supplied to Santa Rosa.



Denotes parts that shall be supplied under this contract.

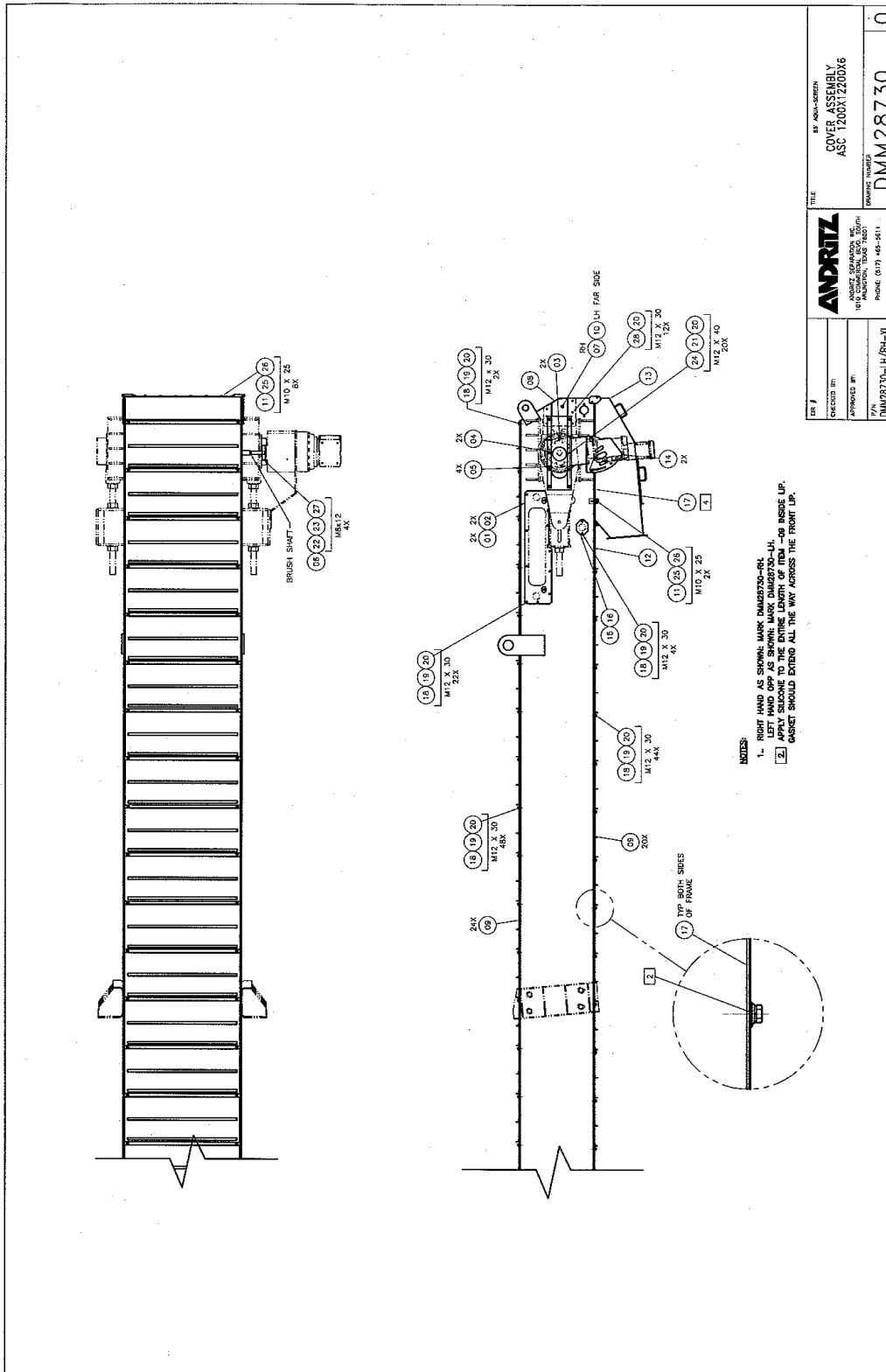


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			DMM28734-XL	0	FRAME ASSY ASC1200X12000		1.00000	EA
1	Asm	10	.DMM28734-01-XL	1	FLATBAR 3/4" X 1-1/2" X 5"	2.00000	2.00000	EA
1	Asm	20	.DMM28734-02-XL	1	PLATE 3/4" X 2" X 16-13/16"	2.00000	2.00000	EA
1	Asm	30	.DMM28290-08-XL	0	BOT'M CROSS SUPP ANGLE, ASC120	1.00000	1.00000	EA
1	Asm	40	.DMM28734-04-XL	1	PIPE 3" SCH80 X 69-7/8" LONG	10.00000	10.00000	EA
1	Asm	50	.DMM28734-05-XL	0	LIFTING EYE PLATE 1/2"	2.00000	2.00000	EA
1	Asm	60	.DMM19524-XL	0	LIFTING EYE DETAIL	2.00000	2.00000	EA
1	Asm	70	.DMM19525-XL	1	SUPPORT PLATE #1	2.00000	2.00000	EA
1	Asm	80	.DMM19527-XL	1	SUPPORT PLATE #2	2.00000	2.00000	EA
1	Asm	90	.DMM28735-LH-XL	1	SIDE FRAME WELDMENT L.H.	1.00000	1.00000	EA
1	Asm	100	.DMM28735-RH-XL	1	SIDE FRAME WELDMENT R.H.	1.00000	1.00000	EA
1	Asm	110	.DMM23942-XL	0	BEARING TAKE-UP WELDMENT	2.00000	2.00000	EA
1	Asm	120	.DMM19526-08-XL	1	LOWER CROSS MEMBER, ASC1200	1.00000	1.00000	EA
1	Asm	130	.DMM26296-XL	0	UPPER CROSS MEMBER, ASC1200	1.00000	1.00000	EA
1	Asm	140	.DMM25608-08-XL	0	LWR CROSS MEMBER WELD, M16 BOL	1.00000	1.00000	EA
1	Asm	150	.DMM24460-RH-XL	0	BEARING RAIL WELDMENT (RH)	1.00000	1.00000	EA
1	Asm	160	.DMM24460-LH-XL	0	BEARING RAIL WELDMENT (LH)	1.00000	1.00000	EA
1	Asm	170	.DMM24461-RH-XL	0	BEARING RAIL LOWER WELD. (RH)	1.00000	1.00000	EA
1	Asm	180	.DMM24461-LH-XL	0	BEARING RAIL WELD. LOWER (LH)	1.00000	1.00000	EA
1	Mtl	190	.DECAL-SAWT13-NO-LIFT	0	DECAL, NOT FOR LIFT'G, SELF ADHE	10.00000	10.00000	FT
1	Asm	200	.DMM23933-24-XL	3	PIPE, 1-1/2 (SCH 40)	6.00000	6.00000	EA
1	Asm	210	.DMM24539-XL	1	REMOVABLE LIFTING EYE	4.00000	4.00000	EA
1	Mtl	220	.933SXM20X60	0	HEX BOLT, M20 X 60, 316SS	16.00000	16.00000	EA
1	Mtl	230	.125SXM20	0	FLATWASHER M20 316SS	16.00000	16.00000	EA
1	Mtl	240	.127SXM20	0	LOCKWASHER M20 316SS	16.00000	16.00000	EA



NOTES:
 1. RIGHT HAND AS SHOWN; MARK DIMA28730-RH. LEFT HAND OFF AS SHOWN; MARK DIMA28730-LH.
 2. APPLY SILICONE TO THE ENTIRE LENGTH OF ITEM -09 INSIDE UP. GASKET SHOULD EXTEND ALL THE WAY ACROSS THE FRONT UP.

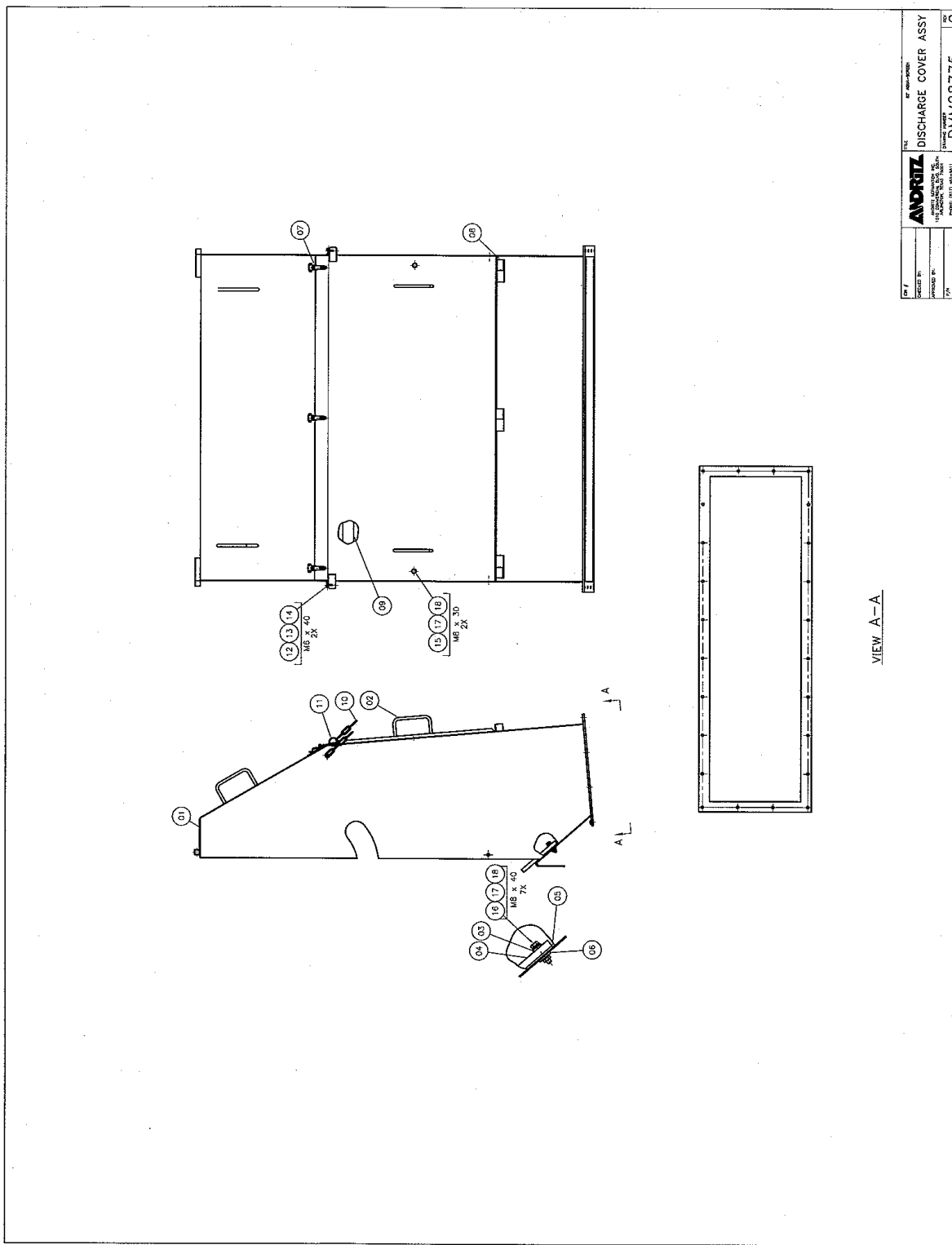
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MANUFACTURED: TONGUE TEST	PHONE: (817) 462-9111	
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1	Asm	20	.DMM28732-XL	0	INSPECTION COVER	2.00000	2.00000	EA
1	Asm	30	.DMM28783-XL	0	SHAFT SAFETY COVER	2.00000	2.00000	EA
1	Asm	40	.DMM28784-FU	0	GASKET M12 SHAFT SAFETY COVER	2.00000	2.00000	EA
1	Asm	50	.DMM28781-XL	0	STIFFENER SHAFT SAFETY COVER	4.00000	4.00000	EA
1	Asm	60	.DMM25028-XL	1	SAFETY COVER, BONFIG A202,A302	1.00000	1.00000	EA
1	Asm	70	.DMM28731-RH-XL	0	FITTING PLATE WELDMNT R.H.	1.00000	1.00000	EA
1	Asm	80	.DMM28774-XL	0	TOP COVER WELDMNT	1.00000	1.00000	EA
1	Asm	90	.DMM28773-XL	0	COVER WELDMNT M12 BOLTS	44.00000	44.00000	EA
1	Asm	100	.DMM28731-LH-XL	0	FITTING PLATE WELDMNT L.H.	1.00000	1.00000	EA
1	Mtl	110	.933SXM10X25	0	HEX BOLT, M10 X 25, 316SS	10.00000	10.00000	EA
1	Asm	120	.DMM28739-XL	0	BACK COVER DETAIL	1.00000	1.00000	EA
1	Asm	130	.DMM28775-XL	0	DISCHARGE COVER ASSY	1.00000	1.00000	EA
1	Asm	140	.DMM28802-FU	0	WASHING BRUSH SUPPORT SEAL	2.00000	2.00000	EA
1	Asm	150	.DMM28230-XL	0	LOWER INSPECTION COVER	2.00000	2.00000	EA
1	Asm	160	.DMM28131-45A	0	SEAL, LOWER INSPECTION	2.00000	2.00000	EA
1	Mtl	170	.A2072-029/02	0	RS FLAT GASKET 41741M1251.50	988.00000	988.00000	IN
1	Mtl	180	.933SXM12X30	0	HEX BOLT, M12 X 30, 316SS	120.00000	120.00000	EA
1	Mtl	190	.737SXM12	0	FLATWASHER, M12, 13mm ID X	120.00000	120.00000	EA
1	Mtl	200	.127SXM12	0	LOCKWASHER M12 316SS	152.00000	152.00000	EA
1	Mtl	210	.125SXM12	0	FLATWASHER M12 316SS	20.00000	20.00000	EA
1	Mtl	220	.125SXM08	0	FLATWASHER M08 316SS	4.00000	4.00000	EA
1	Mtl	230	.127SXM08	0	LOCKWASHER M08 316SS	4.00000	4.00000	EA
1	Mtl	240	.933SXM12X40	0	HEX BOLT, M12 X 40, 316SS	20.00000	20.00000	EA
1	Mtl	250	.9021SXM10	0	FLATWASHER M10 OVERSIZED 316SS	10.00000	10.00000	EA
1	Mtl	260	.127SXM10	0	LOCKWASHER M10 316SS	10.00000	10.00000	EA
1	Mtl	270	.933SXM08X12	0	HEX BOLT M8 X 12 316SS	4.00000	4.00000	EA
1	Mtl	280	.912SXM12X30	0	S.H.C.SCREW, M12 X 30, 316SS	12.00000	12.00000	EA
			DMM28730-RH-XL	0	COVER ASSY ASCI200X12200		1.00000	EA
1	Asm	10	.DMM28733-FU	0	INSPECTION COVER SEAL	2.00000	2.00000	EA
1	Asm	20	.DMM28732-XL	0	INSPECTION COVER	2.00000	2.00000	EA
1	Asm	30	.DMM28783-XL	0	SHAFT SAFETY COVER	2.00000	2.00000	EA
1	Asm	40	.DMM28784-FU	0	GASKET M12 SHAFT SAFETY COVER	2.00000	2.00000	EA
1	Asm	50	.DMM28781-XL	0	STIFFENER SHAFT SAFETY COVER	4.00000	4.00000	EA
1	Asm	60	.DMM25028-XL	1	SAFETY COVER, BONFIG A202,A302	1.00000	1.00000	EA
1	Asm	70	.DMM28731-RH-XL	0	FITTING PLATE WELDMNT R.H.	1.00000	1.00000	EA
1	Asm	80	.DMM28774-XL	0	TOP COVER WELDMNT	1.00000	1.00000	EA
1	Asm	90	.DMM28773-XL	0	COVER WELDMNT M12 BOLTS	44.00000	44.00000	EA
1	Asm	100	.DMM28731-LH-XL	0	FITTING PLATE WELDMNT L.H.	1.00000	1.00000	EA
1	Mtl	110	.933SXM10X25	0	HEX BOLT, M10 X 25, 316SS	10.00000	10.00000	EA
1	Asm	120	.DMM28739-XL	0	BACK COVER DETAIL	1.00000	1.00000	EA
1	Asm	130	.DMM28775-XL	0	DISCHARGE COVER ASSY	1.00000	1.00000	EA
1	Asm	140	.DMM28802-FU	0	WASHING BRUSH SUPPORT SEAL	2.00000	2.00000	EA
1	Asm	150	.DMM28230-XL	0	LOWER INSPECTION COVER	2.00000	2.00000	EA
1	Asm	160	.DMM28131-45A	0	SEAL, LOWER INSPECTION	2.00000	2.00000	EA
1	Mtl	170	.A2072-029/02	0	RS FLAT GASKET 41741M1251.50	988.00000	988.00000	IN
1	Mtl	180	.933SXM12X30	0	HEX BOLT, M12 X 30, 316SS	120.00000	120.00000	EA
1	Mtl	190	.737SXM12	0	FLATWASHER, M12, 13mm ID X	120.00000	120.00000	EA
1	Mtl	200	.127SXM12	0	LOCKWASHER M12 316SS	152.00000	152.00000	EA
1	Mtl	210	.125SXM12	0	FLATWASHER M12 316SS	20.00000	20.00000	EA
1	Mtl	220	.125SXM08	0	FLATWASHER M08 316SS	4.00000	4.00000	EA
1	Mtl	230	.127SXM08	0	LOCKWASHER M08 316SS	4.00000	4.00000	EA
1	Mtl	240	.933SXM12X40	0	HEX BOLT, M12 X 40, 316SS	20.00000	20.00000	EA
1	Mtl	250	.9021SXM10	0	FLATWASHER M10 OVERSIZED 316SS	10.00000	10.00000	EA
1	Mtl	260	.127SXM10	0	LOCKWASHER M10 316SS	10.00000	10.00000	EA
1	Mtl	270	.933SXM08X12	0	HEX BOLT M8 X 12 316SS	4.00000	4.00000	EA
1	Mtl	280	.912SXM12X30	0	S.H.C.SCREW, M12 X 30, 316SS	12.00000	12.00000	EA



FOR:	DMM28775-XL
PROJECT NO.:	DMM28775-XL
DATE:	11/10/2011
BY:	DMM28775-XL
APP.:	DMM28775-XL
REV.:	0

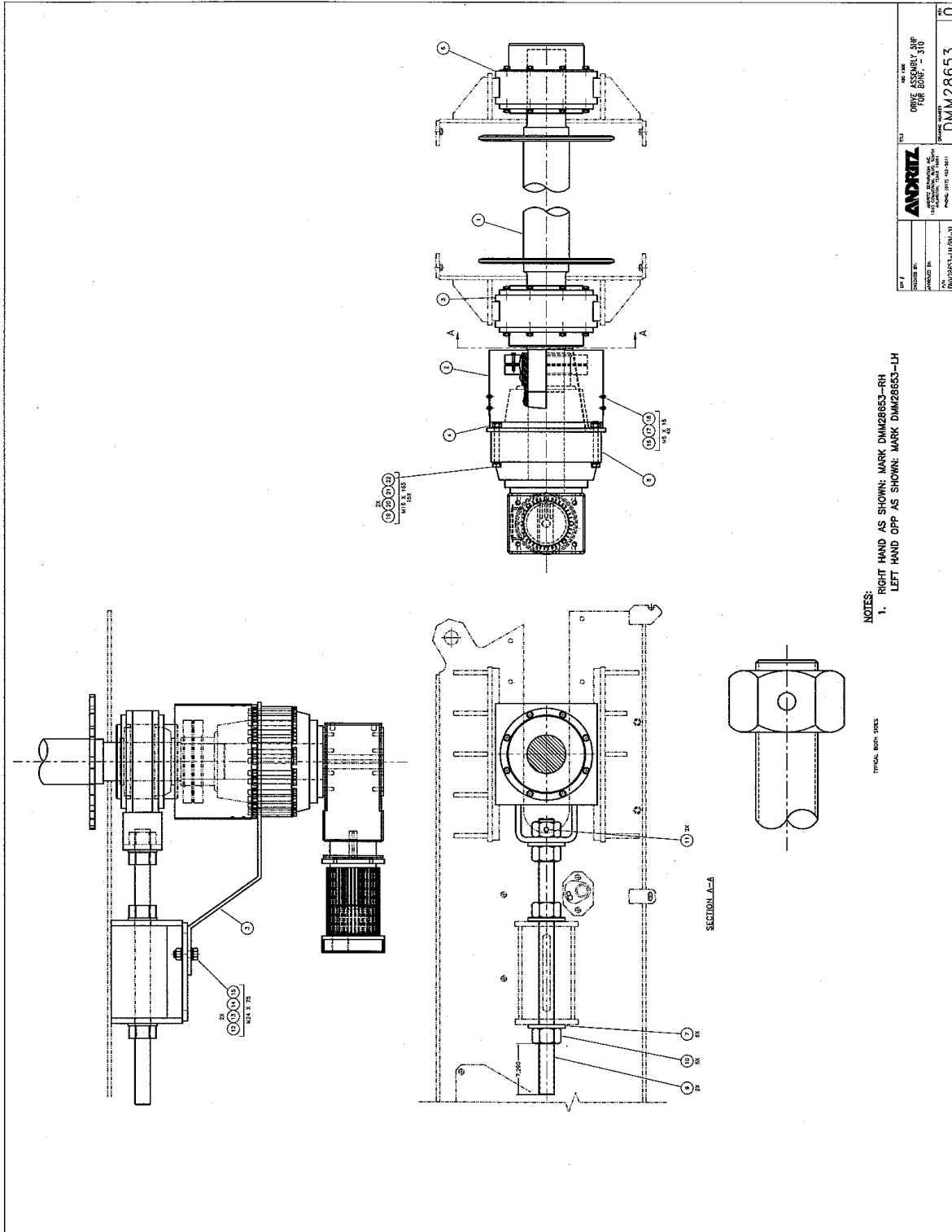
VIEW A-A

Prog: bmr30
User: York

ANDRITZ SEPARATION INC.
BILL OF MATERIAL REPORT
SINGLE LEVEL

Page: 1
Date: 06/13/07
Time: 7:06 am

Lvl	Typ	Seq	Part Number	Revision	Description	Qty/Parent	Required Qty	UM
1	Asm	10	.DMM28775-XL	0	DISCHARGE COVER ASSY		1.00000	EA
1	Asm	20	.DMM28776-XL	0	DISCHARGE COVER WELDMENT	1.00000	1.00000	EA
1	Asm	30	.DMM28777-XL	0	INSPECTION COVER	1.00000	1.00000	EA
1	Asm	30	.DMM21660-08-XL	0	BRUSH CLEAT, ASC1200	1.00000	1.00000	EA
1	Asm	40	.DMM24012-08	1	DR. BLADE, ASCI 1200, 75 DEG	1.00000	1.00000	EA
1	Asm	50	.DMM21698-08	0	SEAL STRIP, DISCH CVR, ASC1200	1.00000	1.00000	EA
1	Asm	60	.DMM21699-08-XL	0	BRUSH ANCHOR CLEAT, ASC 1200	1.00000	1.00000	EA
1	Mtl	70	.LATCH331SS	0	LATCH, ACTION CLAMP, DE-STA-CO	3.00000	3.00000	EA
1	Mtl	80	.HNLIFTOFF	0	HINGE SLIP JOINT LIFT OFF SS	3.00000	3.00000	EA
1	Mtl	90	.GASK-11741M250150P	0	FLAT GASKET, CGR-11741M250150P	132.00000	132.00000	TN
1	Mtl	100	.CH-1/8X24SS	0	CHAIN 1/8 X 24"LG SS	2.00000	2.00000	EA
1	Mtl	110	.CH-LINK 1/8SS	0	CHAIN LINK THREADED 1/8" SS	2.00000	2.00000	EA
1	Mtl	120	.933SXM06X40	0	HEX BOLT M6 X 40, 316SS	2.00000	2.00000	EA
1	Mtl	130	.125SXM06	0	FLATWASHER M06 316SS	2.00000	2.00000	EA
1	Mtl	140	.934SXM06	0	HEX NUT M6 316SS	2.00000	2.00000	EA
1	Mtl	150	.933SXM08X30	0	HEX BOLT M8 X 30, 316SS	2.00000	2.00000	EA
1	Mtl	160	.933SXM08X40	00	HEX BOLT M8 X 40, 316SS	7.00000	7.00000	EA
1	Mtl	170	.125SXM08	0	FLATWASHER M08 316SS	9.00000	9.00000	EA
1	Mtl	180	.127SXM08	0	LOCKWASHER M08 316SS	9.00000	9.00000	EA



Prog: bmr30
User: York

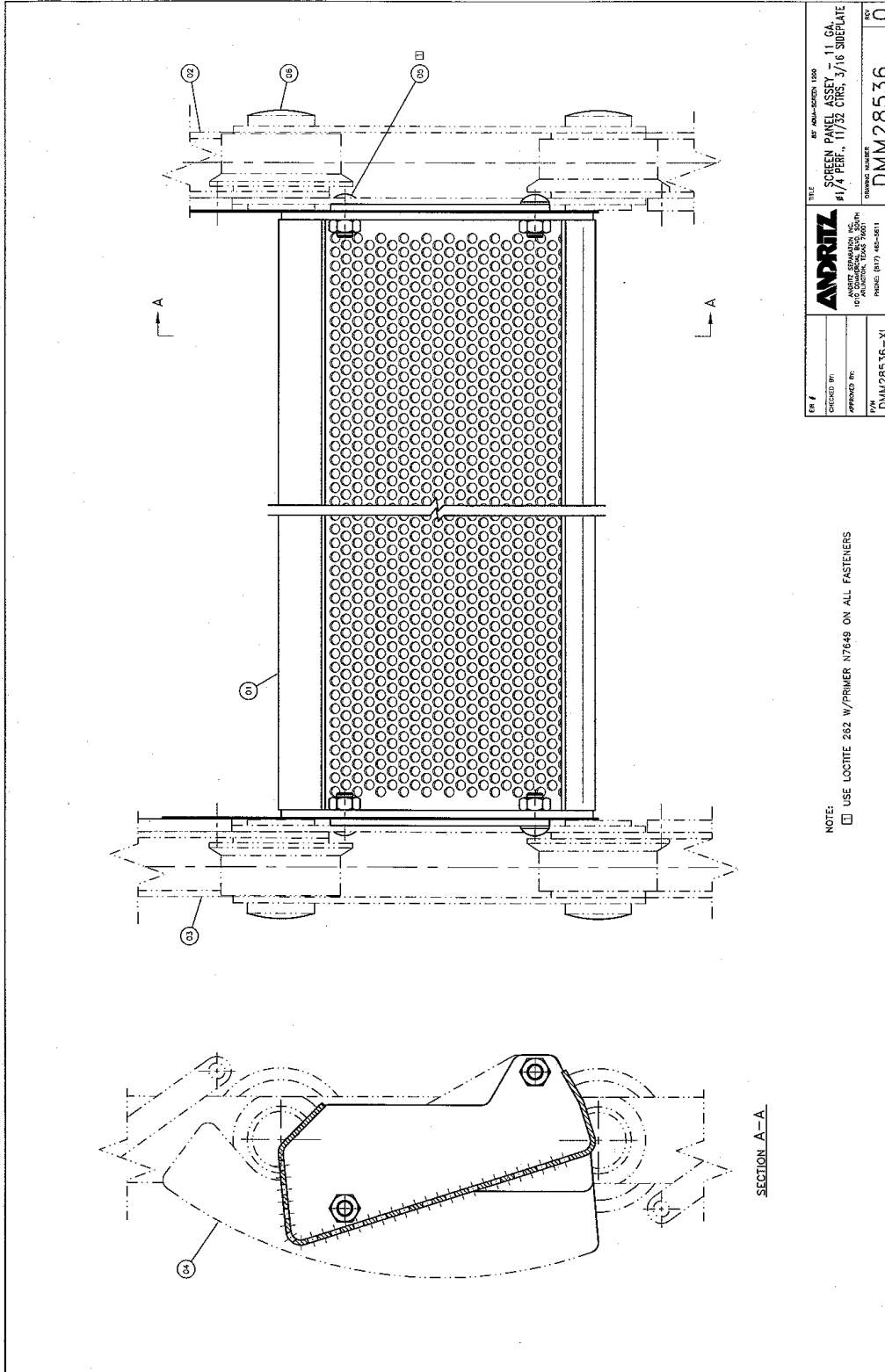
ANDRITZ SEPARATION INC.
BILL OF MATERIAL REPORT
SINGLE LEVEL

Page: 1
Date: 06/12/07
Time: 2:10 pm

Lvl	Typ	Seq	Part Number	Revision	Description	Qty/Parent	Required Qty	UM
1	Asm	10	DMM28653-LH-XL	0	DRIVE ASSY, 5HP, BONF-310 GBOX		1.00000	EA
1	Asm	20	.DMM28654-XL	0	DRIVE SHAFT WELD., 5hp, AQS1200	1.00000	1.00000	EA
1	Asm	30	.DMM28657-XL	1	SAFETY COVER DRIVE MOTOR	2.00000	2.00000	EA
1	Asm	40	.DMM28656-LH-XL	0	TORQUE ARM, LH, 5HP, AQS1200	1.00000	1.00000	EA
1	Asm	40	.DMM28658-XL	0	DRIVE MOTOR SAFETY COVER SPRT	2.00000	2.00000	EA
1	Asm	50	.DMM24413	0	BRG. HOUSING ASSY, OPEN, MAIN	1.00000	1.00000	EA
1	Asm	60	.DMM24414	0	BRG. HOUSING ASSY, CLOSED, MAI	1.00000	1.00000	EA
1	Asm	70	.DMM24419-XL	0	DRIVE WASHER	6.00000	6.00000	EA
1	Asm	90	.975SXM56X1000	0	ALL THREAD M56, 316L SST	2.00000	2.00000	EA
1	Mtl	100	.934SXM56	0	HEX NUT, M56 X 5.5, 316SS	8.00000	8.00000	EA
1	Mtl	110	.1481SXM16X90	0	SPRING PIN, DIA 16x90mm LG, 316S	2.00000	2.00000	EA
1	Mtl	120	.933SXM24X75	0	HEX BOLT, M24 X 75 316SS	1.00000	1.00000	EA
1	Mtl	130	.125SXM24	0	FLATWASHER M24 316SS	2.00000	2.00000	EA
1	Mtl	140	.127SXM24	0	LOCKWASHER M24 316SS	1.00000	1.00000	EA
1	Mtl	150	.934SXM24	0	HEX NUT M24 316SS	1.00000	1.00000	EA
1	Mtl	160	.933SXM06X16	0	HEX BOLT M6 X 16, 316SS	4.00000	4.00000	EA
1	Mtl	170	.125SXM06	0	FLATWASHER M06 316SS	4.00000	4.00000	EA
1	Mtl	180	.127SXM06	0	LOCKWASHER M06 316SS	4.00000	4.00000	EA
1	Asm	190	.975SXM16X165	0	ALL THREAD, M16 X 165 LG	15.00000	15.00000	EA
1	Mtl	200	.125SXM16	0	FLATWASHER M16 316SS	30.00000	30.00000	EA
1	Mtl	210	.127SXM16	0	LOCKWASHER M16 316SS	15.00000	15.00000	EA
1	Mtl	220	.934SXM16	0	HEX NUT M16 316SS	30.00000	30.00000	EA
1	Asm	10	DMM28653-RH-XL	0	DRIVE ASSY, 5HP, BONF 310 GBOX		1.00000	EA
1	Asm	20	.DMM28654-XL	0	DRIVE SHAFT WELD., 5hp, AQS1200	1.00000	1.00000	EA
1	Asm	30	.DMM28657-XL	1	SAFETY COVER DRIVE MOTOR	2.00000	2.00000	EA
1	Asm	40	.DMM28656-RH-XL	0	TORQUE ARM, RH, 5HP, AQS1200	1.00000	1.00000	EA
1	Asm	40	.DMM28658-XL	0	DRIVE MOTOR SAFETY COVER SPRT	2.00000	2.00000	EA
1	Asm	50	.DMM24413	0	BRG. HOUSING ASSY, OPEN, MAIN	1.00000	1.00000	EA
1	Asm	60	.DMM24414	0	BRG. HOUSING ASSY, CLOSED, MAI	1.00000	1.00000	EA
1	Asm	70	.DMM24419-XL	0	DRIVE WASHER	6.00000	6.00000	EA
1	Asm	90	.975SXM56X1000	0	ALL THREAD M56, 316L SST	2.00000	2.00000	EA
1	Mtl	100	.934SXM56	0	HEX NUT, M56 X 5.5, 316SS	8.00000	8.00000	EA
1	Mtl	110	.1481SXM16X90	0	SPRING PIN, DIA 16x90mm LG, 316S	2.00000	2.00000	EA
1	Mtl	120	.933SXM24X75	0	HEX BOLT, M24 X 75 316SS	1.00000	1.00000	EA
1	Mtl	130	.125SXM24	0	FLATWASHER M24 316SS	2.00000	2.00000	EA
1	Mtl	140	.127SXM24	0	LOCKWASHER M24 316SS	1.00000	1.00000	EA
1	Mtl	150	.934SXM24	0	HEX NUT M24 316SS	1.00000	1.00000	EA
1	Mtl	160	.933SXM06X16	0	HEX BOLT M6 X 16, 316SS	4.00000	4.00000	EA
1	Mtl	170	.125SXM06	0	FLATWASHER M06 316SS	4.00000	4.00000	EA
1	Mtl	180	.127SXM06	0	LOCKWASHER M06 316SS	4.00000	4.00000	EA
1	Asm	190	.975SXM16X165	0	ALL THREAD, M16 X 165 LG	15.00000	15.00000	EA
1	Mtl	200	.125SXM16	0	FLATWASHER M16 316SS	30.00000	30.00000	EA
1	Mtl	210	.127SXM16	0	LOCKWASHER M16 316SS	15.00000	15.00000	EA
1	Mtl	220	.934SXM16	0	HEX NUT M16 316SS	30.00000	30.00000	EA

Qty (1) Purchased by Santa Rosa
Qty (1) to be provided under contract.

Qty (2) to be installed under this
contract.



REV	0
DRAWING NUMBER	DMM28536
DATE	11/17/11
BY	DMM28536-XL
APPROVED BY:	
DESIGNED BY:	
DATE	
ANDRITZ 10000 W. 11TH AVENUE, SUITE 100 ARVINGTON, TEXAS 76010 PHONE: (817) 460-9811	
TITLE: SCREEN PANEL ASSEY - 11 GA. 1/4\"/>	
REF: ANDRITZ-SCREEN 1100	

NOTE:
 USE LOCTITE 242 W/PRIMER N7649 ON ALL FASTENERS

SECTION A-A

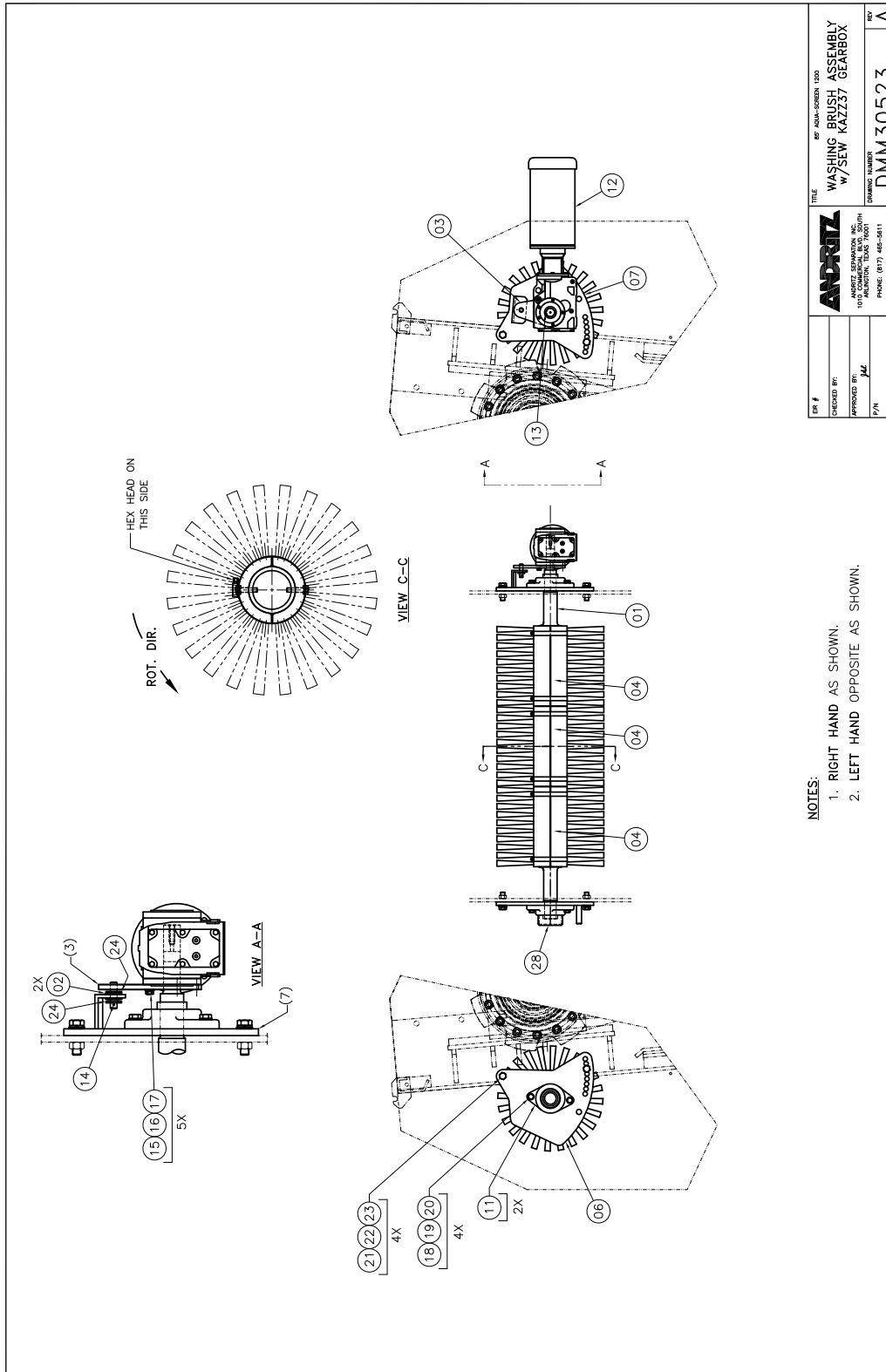
Prog: bmr30
 User: York

ANDRITZ SEPARATION INC.
 BILL OF MATERIAL REPORT
 SINGLE LEVEL

Page: 1
 Date: 06/12/07
 Time: 2:12 pm

Lvl	Typ	Seq	Part Number	Revision	Description	Qty/Parent	Required Qty	UM
			DMM28536-XL	0	SCREEN PANEL ASSY 85 DEGREE		1.00000	EA
1	Asm	10	.DMM28537-XL	0	SCREEN PANEL WELDMENT 85 DEG.	138.00000	138.00000	EA
1	Asm	20	.DMM19862-RH-XL	1	CHAIN WELDMENT DETAIL - RH	69.00000	69.00000	EA
1	Asm	30	.DMM19862-LH-XL	1	CHAIN WELDMENT DETAIL - LH	69.00000	69.00000	EA
1	Mtl	40	.DMM20711-XL		SEAL PLATE, ASC, 85 DEG.	276.00000	276.00000	EA
1	Mtl	50	.7380SXM10X20		BUTTO HEAD S.C.S M10 x 20	552.00000	552.00000	EA
1	Mtl	60	.PLUG-AC-CH-300/321		BUSHING/PLUG, AC-CH-300/321	276.00000	276.00000	EA

Purchased by Santa Rosa
 - DMM20711-XL (Qty 1104)
 - 7380SXM10X20 (Qty 2208)
 - PLUG-AC-CH-300/321 (Qty 1104)
 To be installed under this contract.



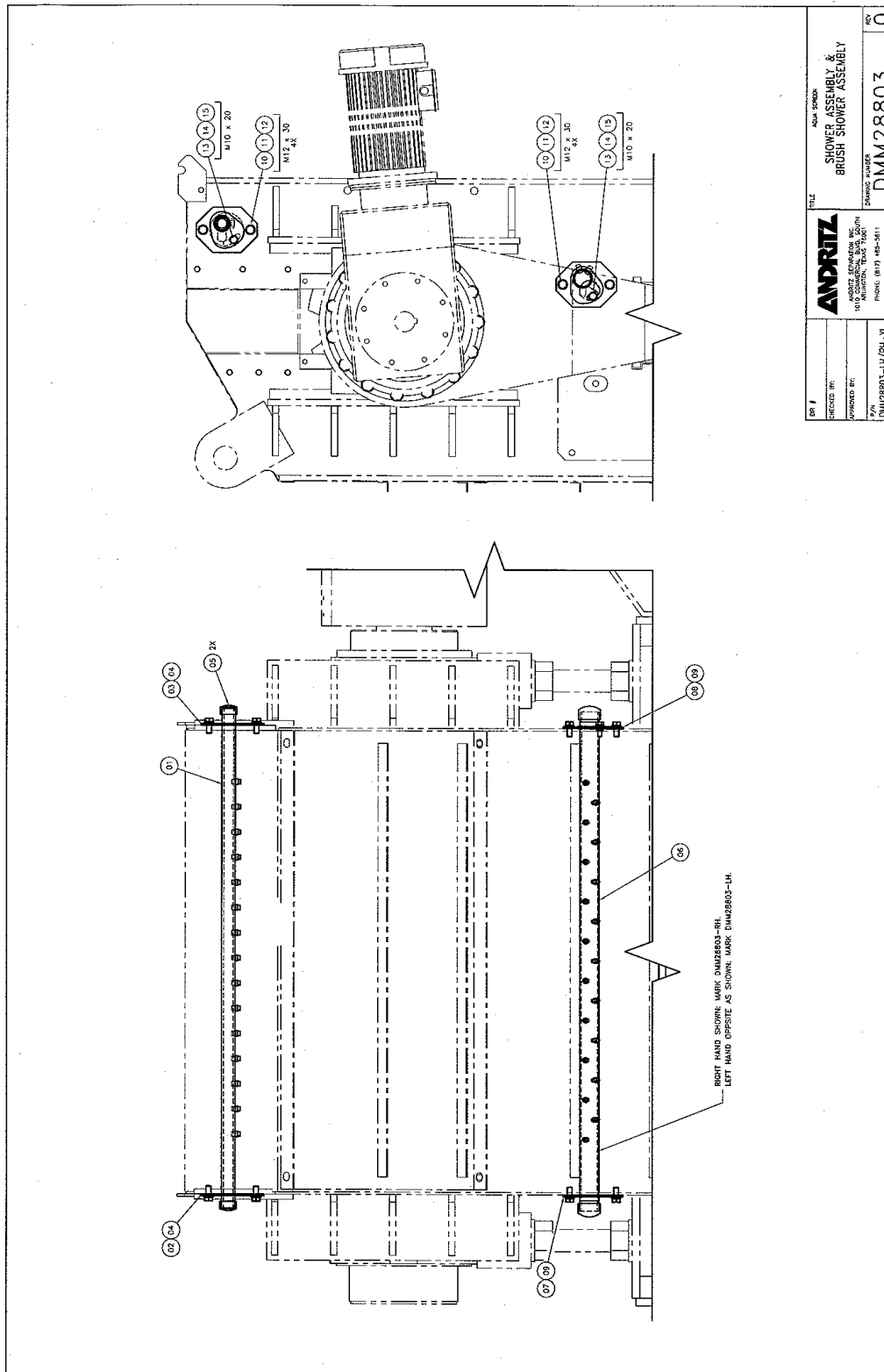
REV	REV
01	A
DRAWING NUMBER: DMM30523	
TITLE: WASHING BRUSH ASSEMBLY W/SEW KAZZ37 GEARBOX	
REF: AWA-SERIES 1000	
ANDRITZ 1401 COLLEGE CIRCLE, SUITE 100 ARLINGTON, TEXAS 76010 PHONE: (817) 466-9811	
DESIGNED BY:	
APPROVED BY:	
DATE:	

PARTS LIST

PART NUMBER		DRAWING NUMBER		DESCRIPTION
		DMM30523-XL		ROTATING BRUSH ASSEMBLY (LH/RH)
ITEM NO.	QUANTITY	UNIT	PART NUMBER	PART DESCRIPTION
1	1	PC	301128565	WASHING BRUSH SHAFT WELDMENT
2	2	PC	131454302	GASKET
3	1	PC	300024083 (LH) 300024082 (RH)	TORQUE ARM
4	3	PC	300658430	BRUSH SEGMENT
6	1	PC	131409691 (LH) 131409692 (RH)	WASHING BRUSH BEARING SUPPORT WELDMENT
7	1	PC	131409694 (LH) 131409695 (RH)	WASHING BRUSH BEARING SUPPORT WELDMENT
11	2	PC	131471315	FLANGE BEARING
13	1	PC	300059374	KEY
14	1	PC	131359827	COTTER PIN
15	5	PC	131034864	HEX HEAD SCREW
16	5	PC	131070103	SPRING WASHER
17	5	PC	131544114	PLAIN WASHER
18	4	PC	100003174	HEX HEAD SCREW
19	4	PC	131398633	SPRING WASHER
20	4	PC	100004457	PLAIN WASHER
21	4	PC	100003184	HEX HEAD SCREW
22	4	PC	131161098	SPRING WASHER
23	4	PC	131042887	PLAIN WASHER
24	2	PC	131050731	PLAIN WASHER
28	1	PC	131410487	BEARING COVER

Purchased by Santa Rosa (Qty 4)
 To be installed under this contract.

DATE	REVISION	DESCRIPTION	APPROVAL
12/11/2018	A	SPLIT BRUCH	JAL



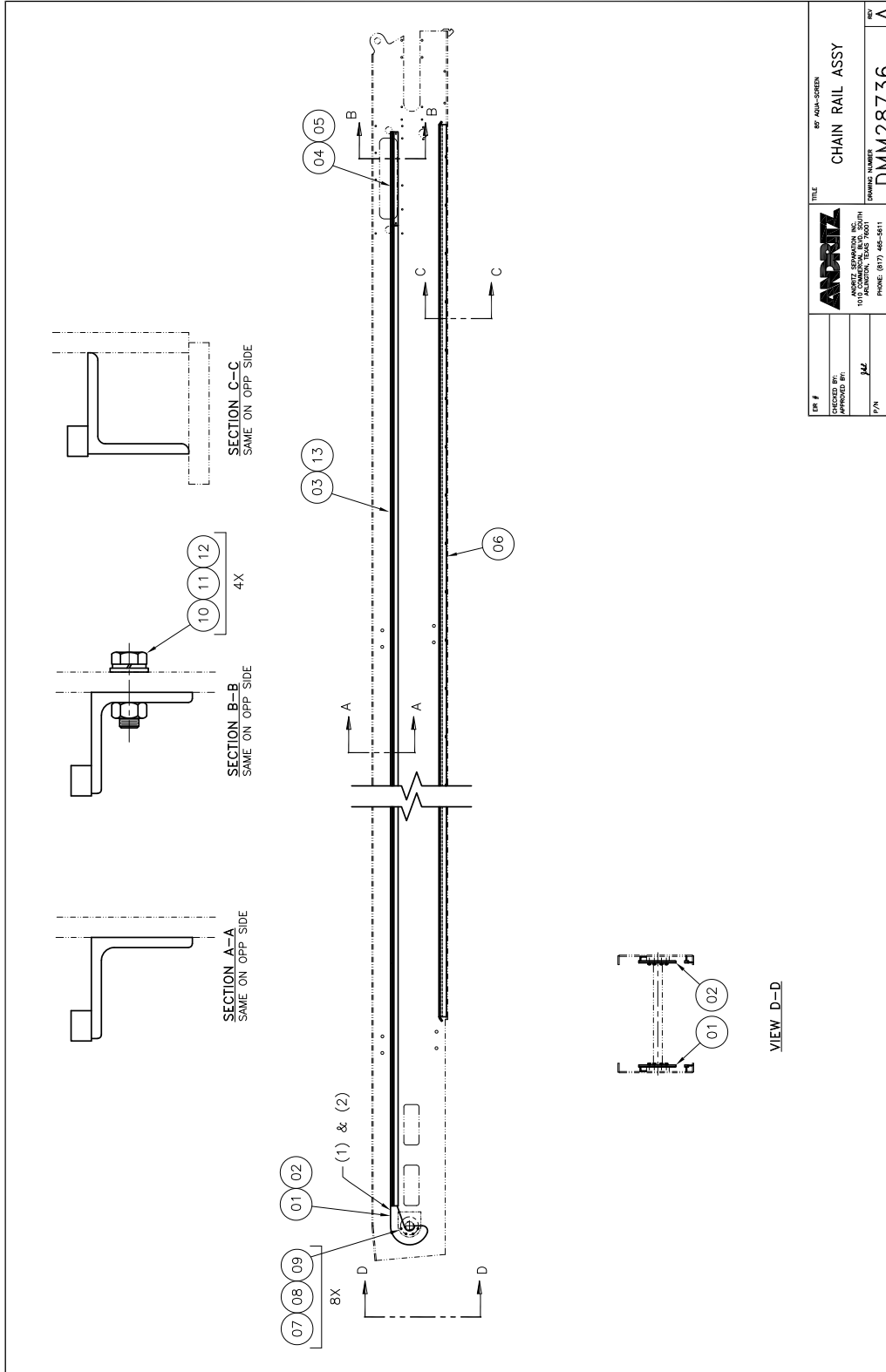
REV	0
TITLE	SHOWER ASSEMBLY & BRUSH SHOWER ASSEMBLY
DATE	04/28/2009
DESIGNED BY	
APPROVED BY	
DATE	04/28/2009-LH/PH-XL
DRAWING NUMBER	DMM28803
ANDRITZ	ANDRITZ WATER SOLUTIONS INC. 701 W. UNIVERSITY, TEXAS 75007 PHONE: (817) 485-3611

Prog: bmr30
User: York

ANDRITZ SEPARATION INC.
BILL OF MATERIAL REPORT
SINGLE LEVEL

Page: 1
Date: 06/12/07
Time: 2:14 pm

Lvl	Typ	Seq	Part Number	Revision	Description	Qty/Parent	Required Qty	UM
			DMM28803-LH-XL	0	SHOWER ASSY & BRUSH SHOWER ASS		1.00000	EA
1	Asm	10	.DMM28804-XL	0	SPRAY BAR WELDMENT	1.00000	1.00000	EA
1	Asm	20	.DMM28812-01-XL	0	SPRAY BAR SS SUPPORT PLATE	1.00000	1.00000	EA
1	Asm	30	.DMM28813-XL	0	SPRAY BAR SUPPORT PLATE	1.00000	1.00000	EA
1	Asm	40	.DMM28812-PU	0	SPRAY BAR GASKET	2.00000	2.00000	EA
1	Mtl	50	.PICAV1.ODSK	0	PIPE CAP 1"SCH80 SOCKET PVC	2.00000	2.00000	EA
1	Asm	60	.DMM28807-LH-XL	0	SPRAY BAR ASSEMBLY	1.00000	1.00000	EA
1	Asm	70	.DMM19511-XL	1	SPRAY BAR SPRT PLT, NON DRIVE	1.00000	1.00000	EA
1	Asm	80	.DMM19512-XL	1	SPRAY BAR SPRT PLT, DRIVE SIDE	1.00000	1.00000	EA
1	Asm	90	.DMM21032-02-35A	1	PU SEAL, 1/8", 35A SHORE HARDNES	2.00000	2.00000	EA
1	Mtl	100	.933SXM12X30	0	HEX BOLT, M12 X 30, 316SS	8.00000	8.00000	EA
1	Mtl	110	.125SXM12	0	FLATWASHER M12 316SS	8.00000	8.00000	EA
1	Mtl	120	.127SXM12	0	LOCKWASHER M12 316SS	8.00000	8.00000	EA
1	Mtl	130	.933SXM10X20	0	HEX BOLT, M10 X 20, 316SS	2.00000	2.00000	EA
1	Mtl	140	.125SXM10	0	FLATWASHER M10 316SS	2.00000	2.00000	EA
1	Mtl	150	.127SXM10	0	LOCKWASHER M10 316SS	2.00000	2.00000	EA
			DMM28803-RH-XL	0	SHOWER ASSY & BRUSH SHOWER ASS		1.00000	EA
1	Asm	10	.DMM28804-XL	0	SPRAY BAR WELDMENT	1.00000	1.00000	EA
1	Asm	20	.DMM28812-01-XL	0	SPRAY BAR SS SUPPORT PLATE	1.00000	1.00000	EA
1	Asm	30	.DMM28813-XL	0	SPRAY BAR SUPPORT PLATE	1.00000	1.00000	EA
1	Asm	40	.DMM28812-PU	0	SPRAY BAR GASKET	2.00000	2.00000	EA
1	Mtl	50	.PICAV1.ODSK	0	PIPE CAP 1"SCH80 SOCKET PVC	2.00000	2.00000	EA
1	Asm	60	.DMM28807-RH-XL	0	SPRAY BAR ASSEMBLY	1.00000	1.00000	EA
1	Asm	70	.DMM19511-XL	1	SPRAY BAR SPRT PLT, NON DRIVE	1.00000	1.00000	EA
1	Asm	80	.DMM19512-XL	1	SPRAY BAR SPRT PLT, DRIVE SIDE	1.00000	1.00000	EA
1	Asm	90	.DMM21032-02-35A	1	PU SEAL, 1/8", 35A SHORE HARDNES	2.00000	2.00000	EA
1	Mtl	100	.933SXM12X30	0	HEX BOLT, M12 X 30, 316SS	8.00000	8.00000	EA
1	Mtl	110	.125SXM12	0	FLATWASHER M12 316SS	8.00000	8.00000	EA
1	Mtl	120	.127SXM12	0	LOCKWASHER M12 316SS	8.00000	8.00000	EA
1	Mtl	130	.933SXM10X20	0	HEX BOLT, M10 X 20, 316SS	2.00000	2.00000	EA
1	Mtl	140	.125SXM10	0	FLATWASHER M10 316SS	2.00000	2.00000	EA
1	Mtl	150	.127SXM10	0	LOCKWASHER M10 316SS	2.00000	2.00000	EA



PARTS MANUAL

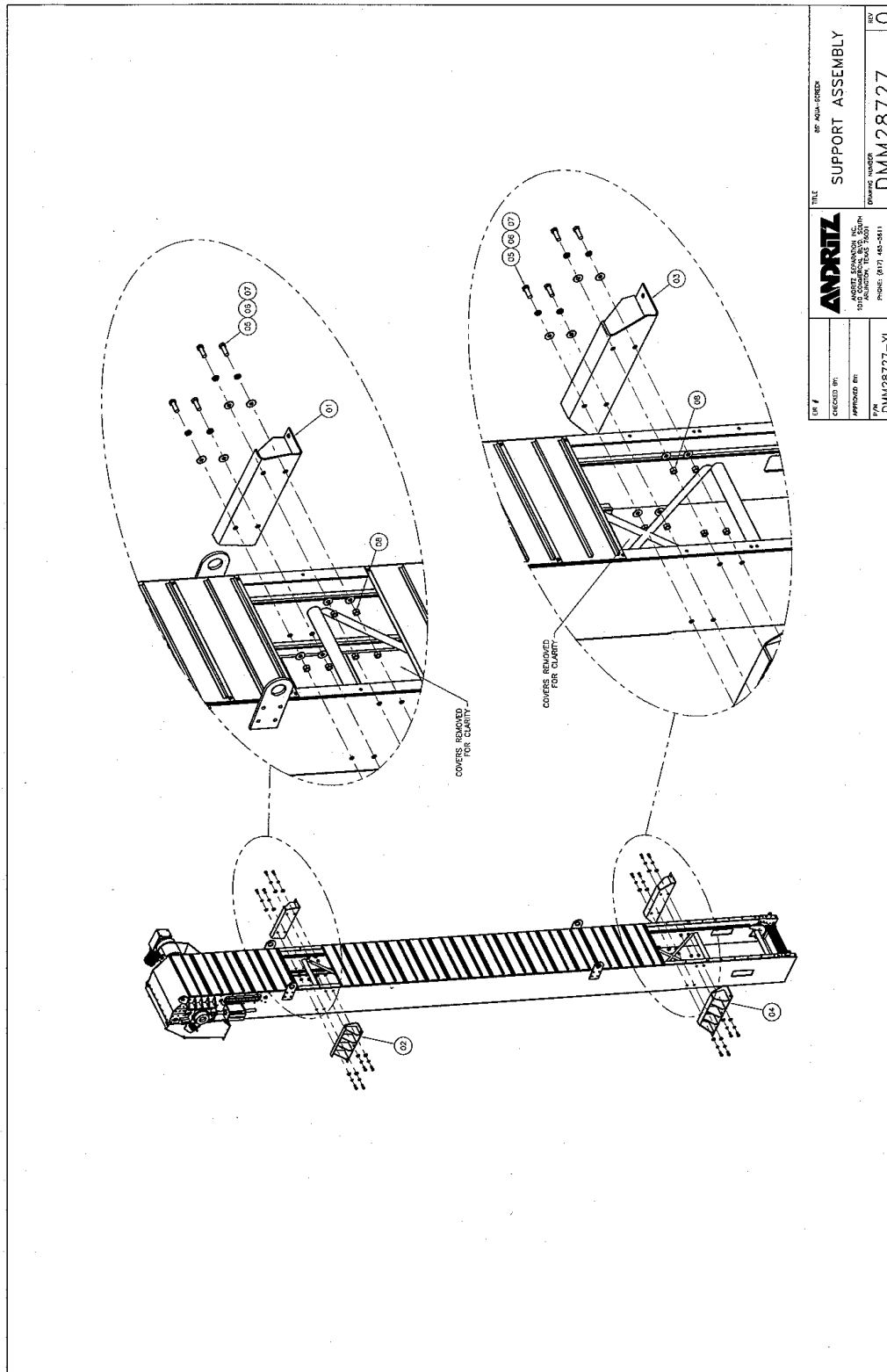
PARTS LIST

PART NUMBER	DRAWING NUMBER	DESCRIPTION
	DMM28736-XL	CHAIN RAIL ASSEMBLY

ITEM NO.	QUANTITY	UNIT	PART NUMBER	PART DESCRIPTION
1	1	PC	301103626	CIRCULAR CHAIN RAIL, RH, 17-4
2	1	PC	301103625	CIRCULAR CHAIN RAIL, LH, 17-4
3	1	PC	301126121	CHAIN WELDMENT, MIDDLE SECTION, RH
4	1	PC	DMM24977-XL	FRONT CHAIN RAIL, UPPER, RH
5	1	PC	DMM24977-XL	FRONT CHAIN RAIL, UPPER, LH
6	2	PC	DMM28738-XL	CHAIN RAIL WELDMENT
7	8	PC	933SXM16X50	HEX BOLT,
8	8	PC	125SXM16	FLATWASHER
9	8	PC	127SXM16	LOCKWASHER
10	4	PC	933SXM12X40	HEX BOLT
11	4	PC	125SXM12	FLATWASHER
12	4	PC	127SXM12	LOCKWASHER
13	1	PC	301126122	CHAIN RAIL WELDMENT, MID SECTION, LH

Purchased by Santa Rosa (Qty 4)
To be installed under this contract.

DATE	REVISION	DESCRIPTION	APPROVAL
12/11/2018	A	17-4 SEGMENTS	JAL

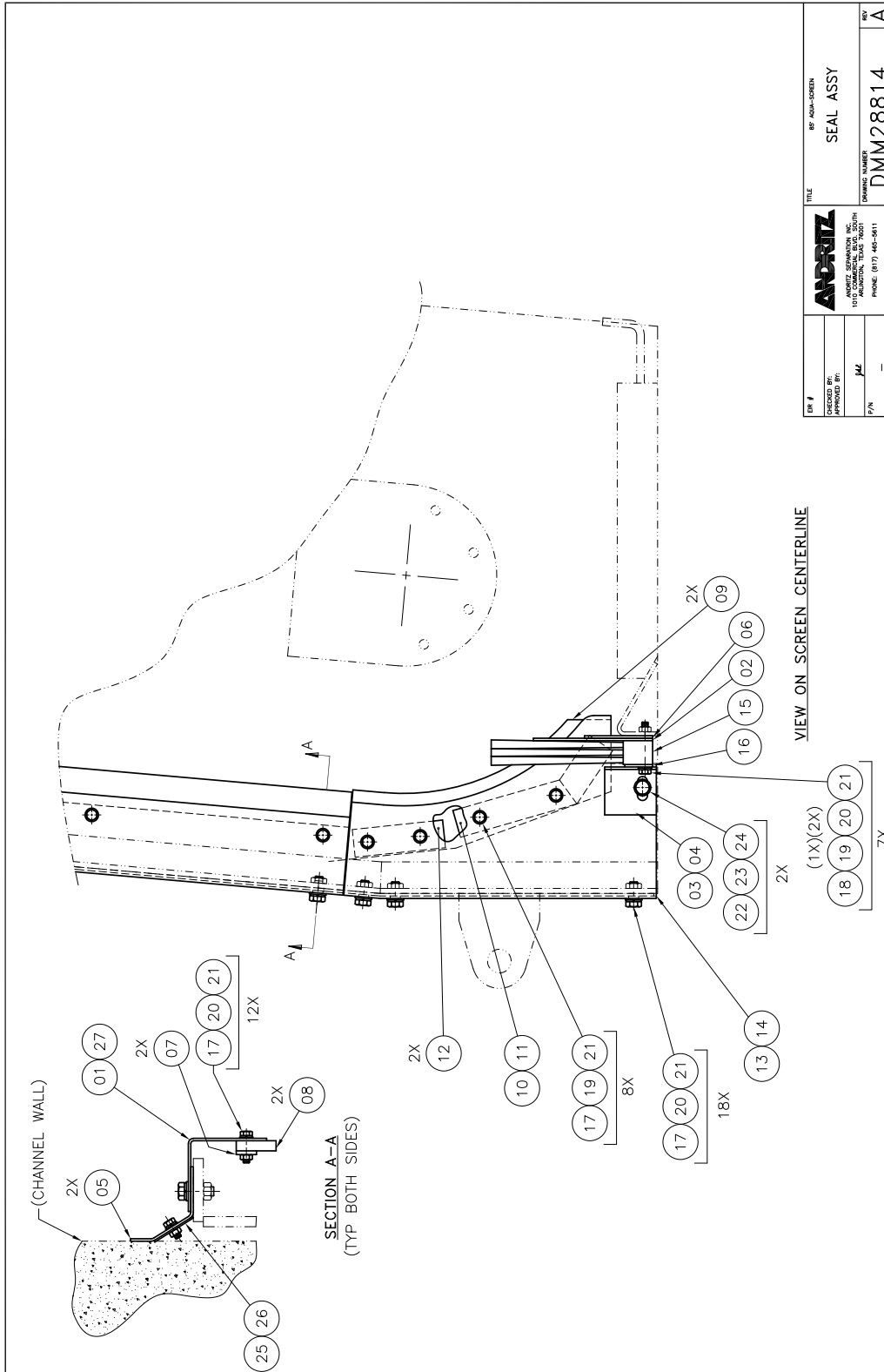


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User: York

ANDRITZ SEPARATION INC.
BILL OF MATERIAL REPORT
SINGLE LEVEL

Page: 1
Date: 06/12/07
Time: 2:16 pm

Lvl	Typ	Seq	Part Number	Revision	Description	Qty/Parent	Required Qty	UM
			DMM28727-XL	0	85 DEGREE SUPPORT ASSY (DUAL)		1.00000	EA
1	Asm	10	.DMM28728-RH-XL	0	UPPER SUPPORT WELDMENT R.H.	1.00000	1.00000	EA
1	Asm	20	.DMM28728-LH-XL	0	UPPER SUPPORT WELDMENT L.H.	1.00000	1.00000	EA
1	Asm	30	.DMM28729-RH-XL	0	LOWER SUPPORT WELDMENT R.H.	1.00000	1.00000	EA
1	Asm	40	.DMM28729-LH-XL	0	LOWER SUPPORT WELDMENT L.H.	1.00000	1.00000	EA
1	Mtl	50	.933SXM24X75	0	HEX BOLT, M24 X 75 316SS	16.00000	16.00000	EA
1	Mtl	60	.125SXM24	0	FLATWASHER M24 316SS	16.00000	16.00000	EA
1	Mtl	70	.127SXM24	0	LOCKWASHER M24 316SS	16.00000	16.00000	EA



DR #	RF A24M-SCREEN	TITLE	SEAL ASSY	REV	A
CHECKED BY:		ANTRITZ		DRAWING NUMBER	DMM28814
APPROVED BY:		ANTRITZ CORPORATION, INC. 110 COMMERCIAL DRIVE, SOUTH JARVIS, OKLAHOMA 74001 PHONE: (817) 464-5611			

PARTS LIST

PART NUMBER		DRAWING NUMBER		DESCRIPTION
		DMM28814-XL		SEAL ASSEMBLY
ITEM NO.	QUANTITY	UNIT	PART NUMBER	PART DESCRIPTION
1	1	PC	301143579	SEAL SUPPORT, RIGHT HAND
2	1	PC	131409174	SEAL SUPPORT, LEFT HAND
3	1	PC	131516654	SEALING BRUSH SEAL STRIP
4	1	PC	131516655	SEALING BRUSH FITTING ANGLE, LH
5	2	PC	131409881	SEAL SIDE TIGHTNESS STRIP
6	1	PC	301146088	SEALING BRUSH BACKING STRIP
7	2	PC	131409883	SEAL RETAINER UPPER SIDE CLEAT
8	2	PC	301143677	SEAL STRIP , UPPER SIDE
9	1	PC	300005742	SEAL STRIP , LOWER SIDE
10	1	PC	131680608	SEAL RETAINER , LOWER BACKING STRIP, RH
11	1	PC	131680607	SEAL RETAINER , LOWER BACKING STRIP, LH
12	2	PC	131409887	SEAL RETAINER LOWER SIDE
13	1	PC	301143577	SEAL SUPPORT , LOWER, RH
14	1	PC	301143578	SEAL SUPPORT , LOWER, LH
15	1	PC	131406274	SEALING BRUSH
16	1	PC	301146089	SEALING BRUSH CLEAT
17	38	PC	131034864	HEX HEAD SCREW
18	7	PC	100003161	HEX HEAD SCREW
19	15	PC	131544114	PLAIN WASHER
20	44	PC	131546870	PLAIN WASHER
21	45	PC	131070103	SPRING WASHER
22	2	PC	100003168	HEX HEAD SCREW
23	2	PC	131398431	PLAIN WASHER
24	2	PC	131069990	LOCK WASHER
25	2	PC	131409888	LOWER SIDE SEAL STIFFENER
26	2	PC	131409889	UPPER SIDE SEAL STIFFENER
27	1	PC	301143670	SEAL SUPPORT UPPER
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Purchased by Santa Rosa (Qty 4) To be installed under this contract. </div>				

DATE	REVISION	DESCRIPTION	APPROVAL
A	12/11/2018	SEAL STRIP UPGRADE	JAL

LAGUNA TREATMENT PLANT

1643-ASC

DRIVE LIST

AQUASCREEN:

MAIN DRIVE:

Motor: Baldor, VM7044T.
5HP, 460VAC, 3PH, 60HZ, 1725 RPM, Explosion Proof,
Class 1, Grp D, C-Face, NEMA 184TC, 1.15 Service
factor, Class F Insulation, Class B Temperature Rise.

Main Gear reducer: Bonfiglioli, A 502 UH50 20.9 N184TC B3, Ratio 20.9:1

Secondary reduction: Bonfiglioli, 3 10 L 2 32.6 FP EOSe GOA, Ratio 32.6:1

Combination Planetary/Helical Bevel Gear Reducer, Ratio
681.3:1, Reducer rated @2.1 Service Factor based on 5
HP @1725 Rpm input.

CLEANING BRUSH DRIVE:

Motor: Baldor, VM7037T
2HP, 460VAC, 3PH, 60HZ, 1725 RPM, Explosion Proof,
Class 1, Grp D, C-Face, NEMA 145TC, 1.15 Service
factor, Class F Insulation, Class B Temperature Rise.

Gear Reducer: Bonfiglioli, A 202 NUH 18 N145TC B3, Ratio 18: 1

Helical Bevel Gear Reducer, Reducer Rated @1.9 Service
Factor based on a 2 HP @ 1725 Rpm input

NOTES:

Rev. 0: Released for Approval.

**RECOMMENDED SPARE PARTS LIST
 FOR
 1200X12200
 LANGUMA TREATMENT PLANT
 SANTA ROSA, CA
 JOB NO #1643**

DESCRIPTION	PART NO.	QTY.
		<small>Qty. for 1 machine</small>
Screen Panel	DMM28537-XL	138
Side Seal Plate	DMM20711-XL	276
Spray Nozzles	H1/4W-SS5006	9
	H1/4U-SS5030	10
	H1/4W-SS5007	15
Chain	DMM19862-RH -XL	69 EA
Chain	DMM19862-LH -XL	69 EA
Circular Chain Rail	301103625 (LH)	1
	301103626 (RH)	1
Doctor Blade	DMM24012-08	1
Foot Brush	131406274	1
Circular Brush	300658430	3
Washing Brush Bearings	BR-F2BSC112	2
Side Seal Strips	301143677 (UPPER SIDE SEAL)	2
	300005742 (LOWER SIDE SEAL)	2
	131409881 (SIDE SEAL STRIP)	2
	131409174 FOOT BRUSH BACKING STRIP	1