

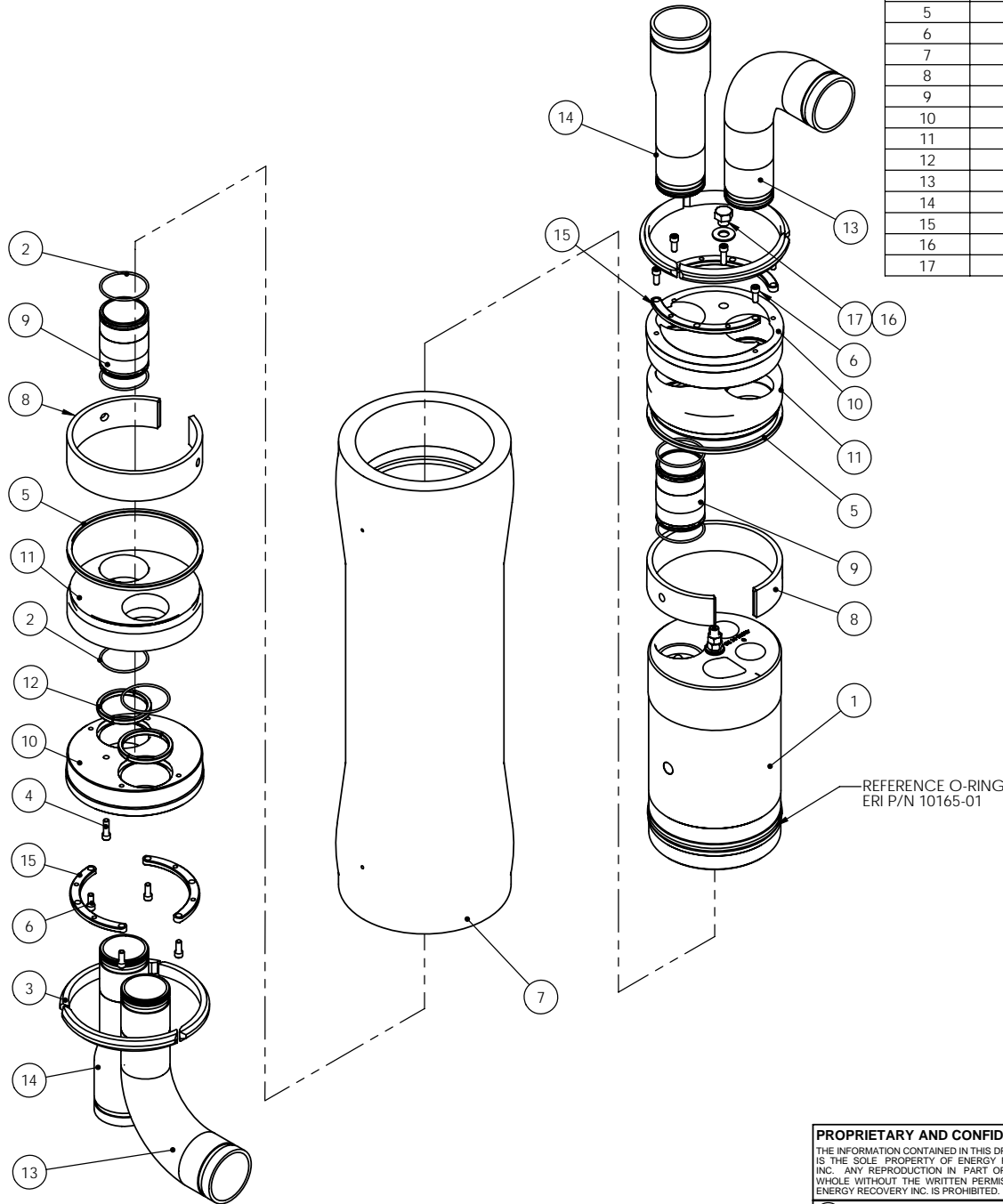
NOTES:

1. INSTALL O-RINGS WITH APPROVED WATER BASED LUBRICANT.
2. REFER TO OPERATIONS AND MAINTANCE MANUAL FOR ASSEMBLY, DISASSEMBLY INSTRUCTIONS AND REQUIREMENTS.

BILL OF MATERIALS

ITEM NO.	40009-01/QTY.	40009-02/QTY.	PART NO.	DESCRIPTION	MATERIAL
1	1	-	43006-01	ASSY, INTERNALS, PX-180	---
1	-	1	43006-02	ASSY, INTERNALS, PX-220	---
2	8	8	10162-01	O-RING, -231	EPDM
3	6	6	10013-01	SEGMENT, LOCK RING, 8"	316 SS
4	2	2	10078-01	SHCS, 5/16-18 X 1" LG	316 SS
5	2	2	10065-01	RING, SEAL, QUAD, -442	EPDM
6	8	8	10077-01	SHCS, 5/16-18 X 3/4" LG	316 SS
7	1	1	43007-01	HOUSING	FIBERGLASS
8	2	2	43012-01	RING, THRUST, 65 SERIES	PVC
9	2	2	43019-01	NIPPLE, LOW PRESSURE	AL6XN*
10	2	2	43009-01	PLATE, BEARING, PORT	ALUMINUM
11	2	2	43010-01	PLATE, SEALING	FIBERGLASS
12	8	8	43031-01	RING, LOCKING, PORT	CN3MN
13	2	2	43042-01	PORT, ELBOW, 3X2.5, AL6 IC, 65	CN3MN
14	2	2	43043-01	PORT, STRT, 3X2.5, AL6 IC, 65	CN3MN
15	4	4	43056-01	RING, LOCK, 65 SERIES	FIBERGLASS
16	1	1	10235-01	WSHR, FLAT SEALING, 5/8, EPDM	EPDM
17	1	1	10234-01	SCRW, HEX, 5/8-11X.5L, NYLON	NYLON

*OR EQUIVALENT



Part Number:	Description
40009-01	PX-180 ASSY LABELED FOR SEAWATER SIDE UP
40009-02	PX-220 ASSY LABELED FOR SEAWATER SIDE UP
40009-03	PX-180 ASSY LABELED FOR CONCENTRATE SIDE UP
40009-04	PX-220 ASSY LABELED FOR CONCENTRATE SIDE UP

[METRIC]
INCH

UNLESS OTHERWISE SPECIFIED:
TOLERANCES: (IN INCHES)

FRACTIONAL: ± 1/32"
ANGULAR: MACH ± 5°
BEND ± 1°
TWO PLACE DECIMAL: ± .01"
THREE PLACE DECIMAL: ± .005"
FOUR PLACE DECIMAL: ± .0002"
SURFACE FINISH:
ON PART 125 RMS
ON O-RING SURFACES 32 RMS

DIMENSIONING AND TOLERANCING PER ANSI Y14.5M (LATEST)

FINISH:

MATERIAL:
SHOWN

PROPRIETARY AND CONFIDENTIAL

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PRODUCT

DRAWING STATUS

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REV	ECN NO.	DESCRIPTION	BY	DATE
4	08-008	REVISED DRAWING TO INCLUDE CURRENT REVISION OF THE SEAL PLATE	FTM	2/11/2008
3	07-001	REVISED DRAWING TO SHOW PX-SYMMETRY, CHANGED LENGTH TOLERANCE TO SYMMETRIC TOL. AND CHANGED LOCKING RING.	FTM	01/17/07
2	05-021	REVISED TO TRACK REVISION IN CARTRIDGE ASSY	JGM	05/10/2005
1	05-009	CHANGED ALL PORTS TO IC	JGM	02/24/2005

REVISIONS

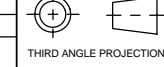


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Ph. (510)483-7370 / Fax: (510)483-7371
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DRAWN	FTM	1/17/07
CHECKED	JGM	1/22/07
ENG APPR	RLS	1/23/07

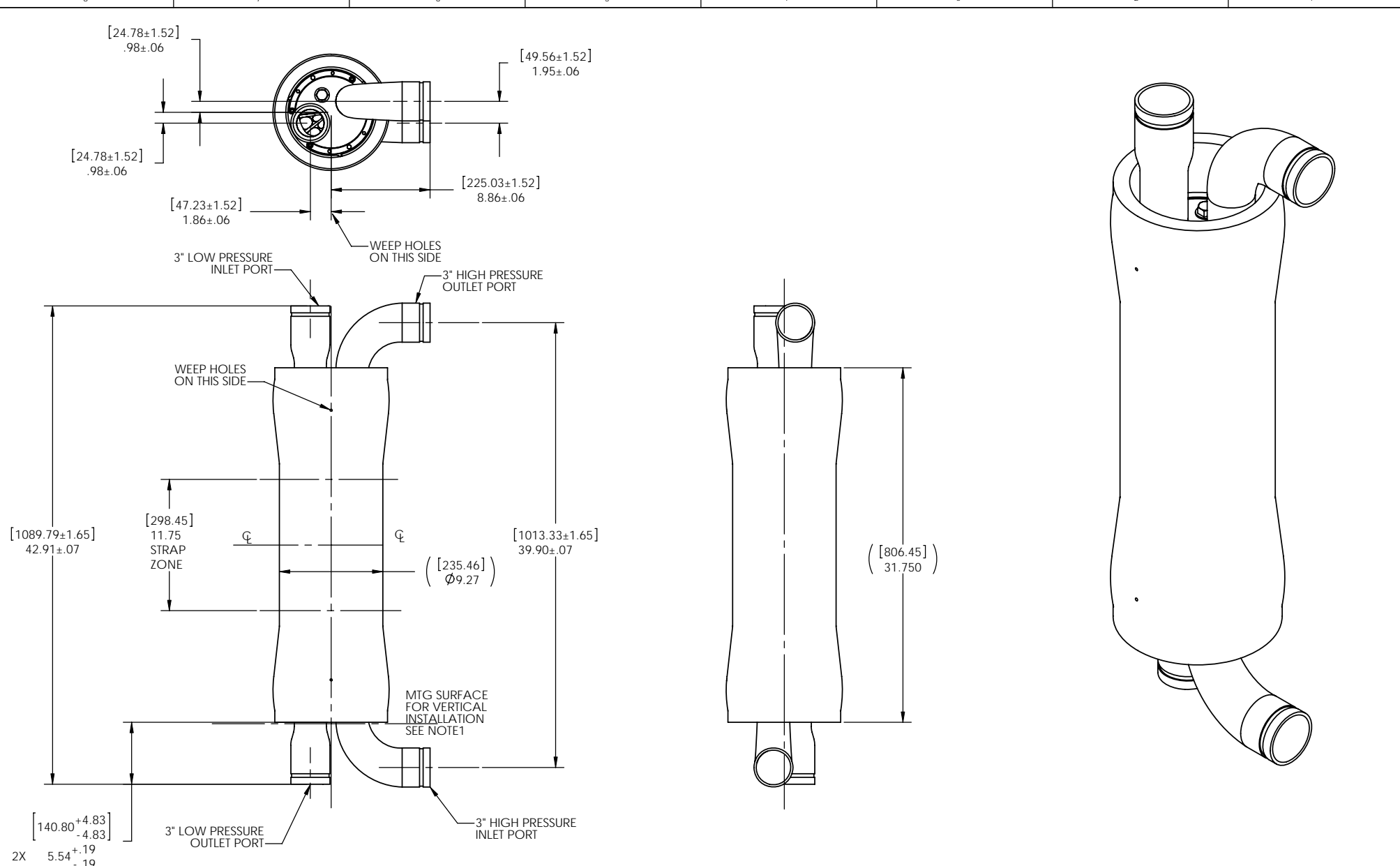
TITLE:
**ASSY, 65 SERIES
PX-180, PX-220**



SIZE DWG. NO. REV
C 40009 4
SCALE: 1:5 WEIGHT: SHEET 1 OF 2

Thursday, June 05, 2008 10:27:42 AM - X:\Engineering\Fred\le\My PDM\Works Workgroup Documents\40009

Thursday, June 05, 2008 10:27:42 AM - X:\Engineering\Freddie\My PDM\Works Workshop Documents\40009



PIPING DETAIL

- NOTES:
 1. SHIM BETWEEN HOUSING AND MTG SURFACE AS REQUIRED.
 2. HOUSING MUST BE INDEPENDENTLY SUPPORTED.
 REFERENCE OPERATION AND MAINTENANCE MANUAL.
 3. ALL PORT CONNECTIONS USE 3" GROOVED END PIPE COUPLINGS

**[METRIC]
INCH**

UNLESS OTHERWISE SPECIFIED: TOLERANCES: (IN INCHES)	
FRACTIONAL: ± 1/32"	
ANGULAR: MACH ± 5°	
BEND ± 1°	
TWO PLACE DECIMAL: ± .01"	
THREE PLACE DECIMAL: ± .005"	
FOUR PLACE DECIMAL: ± .0002"	
SURFACE FINISH: ON PART 125 RMS ON O-RING SURFACES 32 RMS	
DIMENSIONING AND TOLERANCING PER ANSI Y14.5M (LATEST)	
FINISH:	
MATERIAL SHOWN	



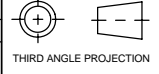
ENERGY RECOVERY INC.

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 Ph. (510)483-7370 / Fax: (510)483-7371
 www.energyrecovery.com

DRAWN	FTM	1/17/07
CHECKED	JGM	1/22/07
ENG APPR	RLS	1/23/07

TITLE: ASSY, 65 SERIES PX-180, PX-220		
SIZE C	DWG. NO. 40009	REV 4
SCALE: 1:6	WEIGHT:	SHEET 2 OF 2

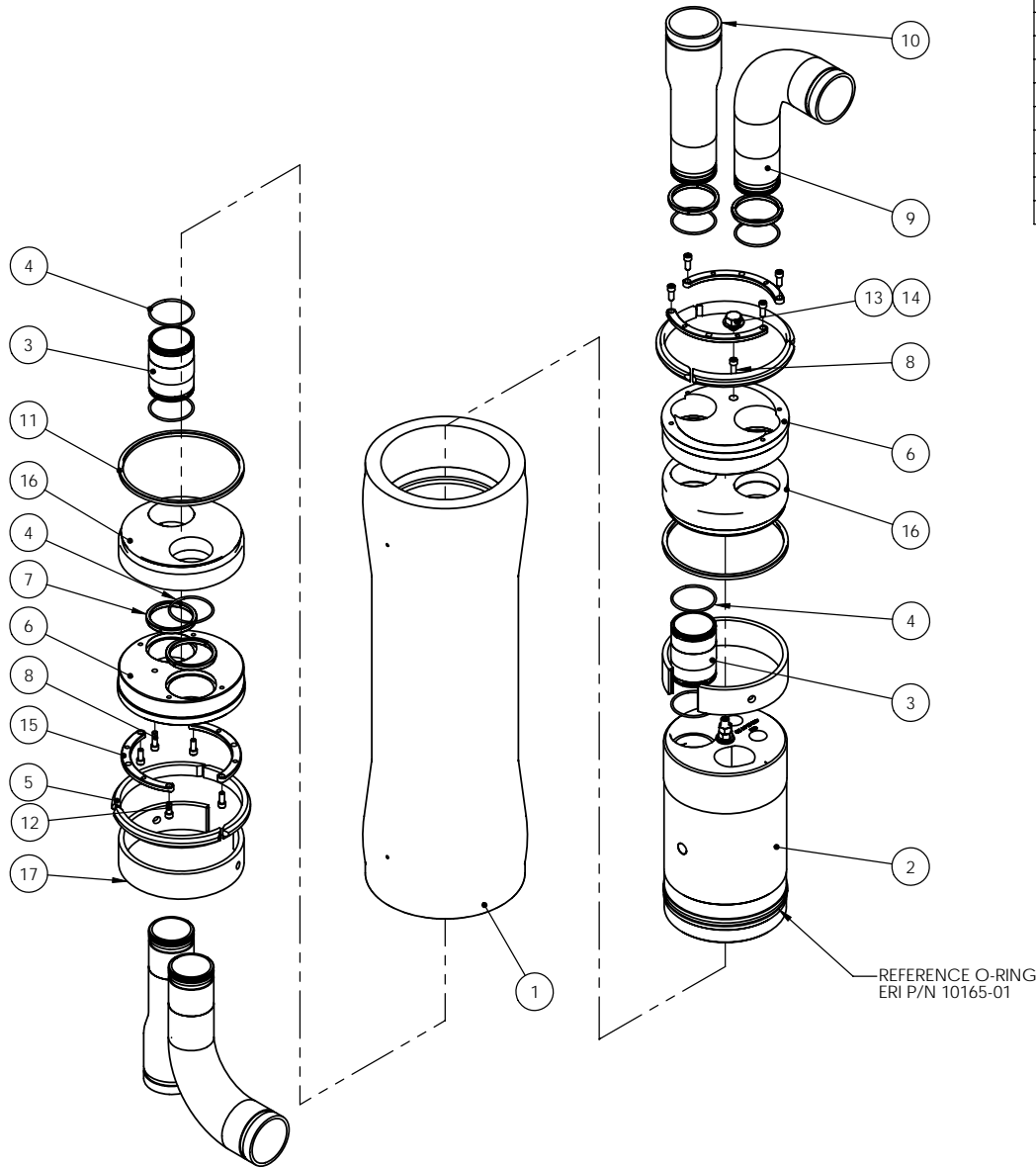
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	DRAWING STATUS
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THIRD ANGLE PROJECTION

NOTES:

1. INSTALL O-RINGS WITH APPROVED WATER BASED LUBRICANT.
2. REFER TO OPERATIONS AND MAINTANCE MANUAL FOR ASSEMBLY, DISASSEMBLY INSTRUCTIONS AND REQUIREMENTS.



BILL OF MATERIALS				
ITEM NO.	43006-01/QTY.	PART NO.	DESCRIPTION	MATERIAL
1	1	43007-01	HOUSING	FIBERGLASS
2	1	43046-01	ASSY, INTERNALS, PX-260	---
3	2	43019-01	NIPPLE, LOW PRESSURE	AL6XN*
4	8	10162-01	O-RING, -231	EPDM
5	6	10013-01	SEGMENT, LOCK RING, 8"	316 SS
6	2	43009-01	PLATE, BEARING, PORT	ALUMINUM
7	8	43031-01	RING, LOCKING, PORT	CN3MN
8	2	10078-01	SHCS, 5/16-18 X 1" LG	316 SS
9	2	43042-01	PORT, ELBOW, 3X2.5, AL6 IC, 65	CN3MN
10	2	43043-01	PORT, STRT, 3X2.5, AL6 IC, 65	CN3MN
11	2	10065-01	RING, SEAL, QUAD, -442	BUNA-N
12	8	10077-01	SHCS, 5/16-18 X 3/4" LG	316 SS
13	1	10234-01	SCRW, HEX, 5/8-11X.5L, NYLON	NYLON
14	1	10235-01	WSHR, FLAT SEALING, 5/8, EPDM	EPDM
15	4	43056-01	RING, LOCK, 65 SERIES	FIBERGLASS
16	2	43010-01	PLATE, SEALING	FIBERGLASS
17	2	43012-01	RING, THRUST, 65 SERIES	PVC

* OR EQUIVALENT

Part Number:	Description
40018-01	PX-260 ASSY LABELED FOR SEAWATER SIDE UP
40018-02	PX-260 ASSY LABELED FOR CONCENTRATE SIDE UP

INCH

UNLESS OTHERWISE SPECIFIED:
TOLERANCES:

FRACTIONAL: $\pm 1/32"$
 ANGULAR: MACH $\pm 5^\circ$
 BEND $\pm 1^\circ$
 TWO PLACE DECIMAL: $\pm .01"$
 THREE PLACE DECIMAL: $\pm .005"$
 FOUR PLACE DECIMAL: $\pm .0002"$
 SURFACE FINISH:
 ON PART 125 RMS
 ON O-RING SURFACES 32 RMS

DIMENSIONING AND TOLERANCING PER ANSI Y14.5M (LATEST)

FINISH:
MATERIAL:
SHOWN

PROPRIETARY AND CONFIDENTIAL
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PRODUCT

DRAWING STATUS

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REV	ECN NO.	DESCRIPTION	BY	DATE
2	08-016	DRAWING REVISED TO INCLUDE REVISED SEAL PLATE THAT CAPTURES THE O-RING	FTM	3/31/08
1	07-029	REVISED DRAWING TO SHOW PX SYMMETRY. CHANGED LENGTH TOLERANCE TO SYMMETRIC TOLERANCE	FTM	09/25/07
0	06-028	CREATED DRAWING FOR THE PX-260	FTM	12/14/06

REVISIONS

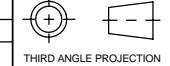


ENERGY RECOVERY INC.

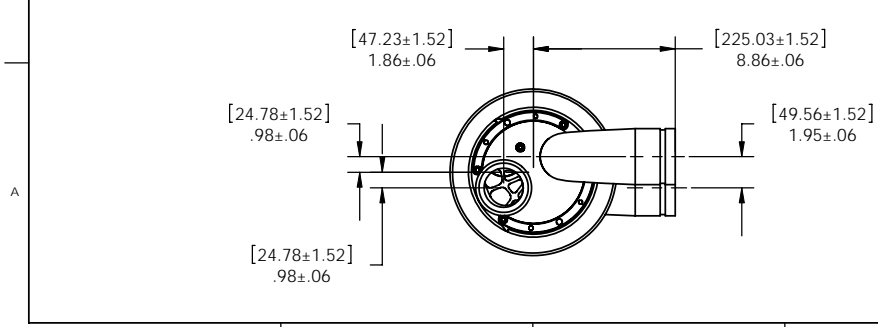
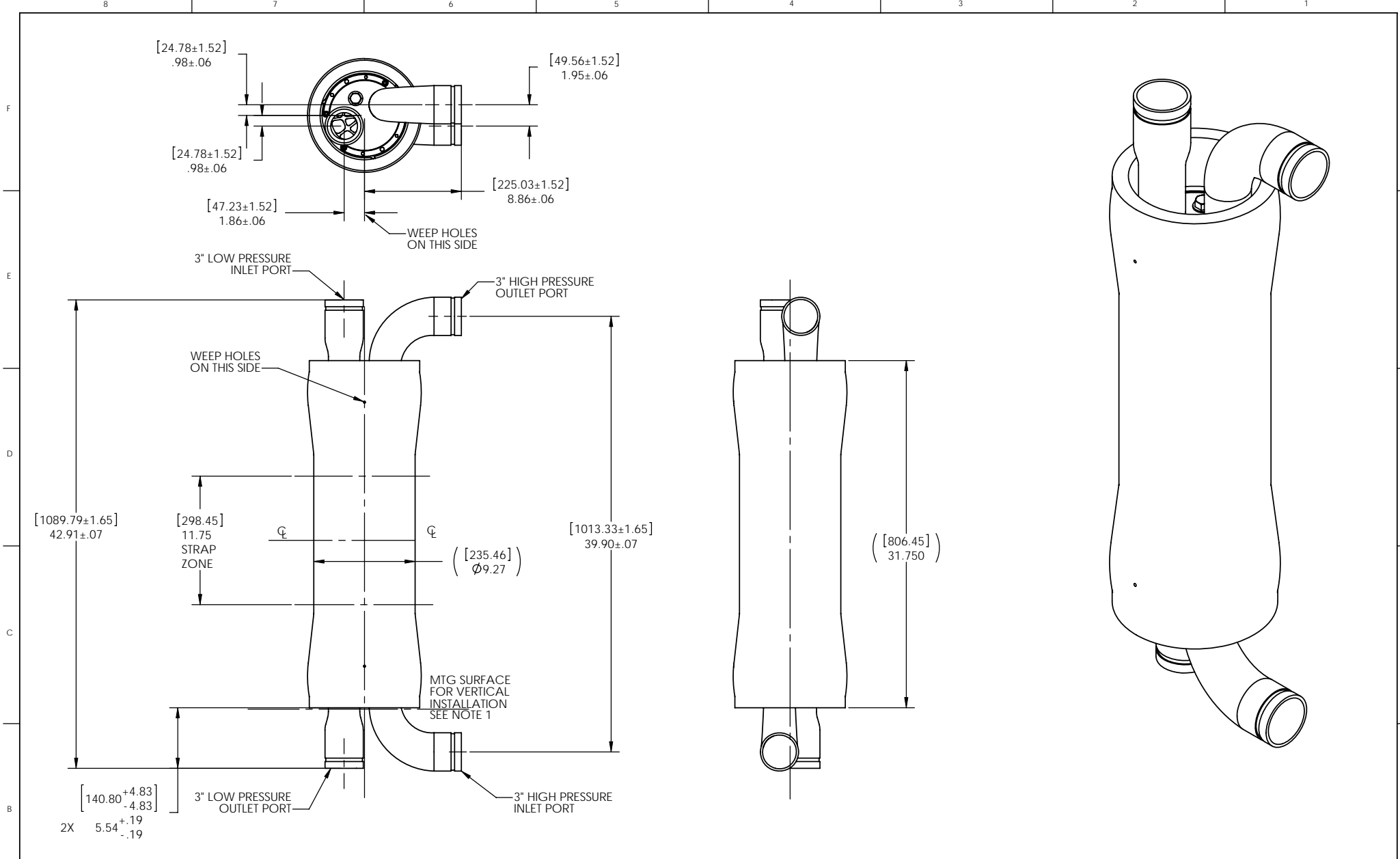
1908 Doolittle Drive, San Leandro, CA 94577
 Ph. (510)483-7370 / Fax: (510)483-7371
 www.energyrecovery.com

DRAWN	FTM	12/13/2006
CHECKED	JGM	12/18/2002
ENG APPR	RLS	12/18/2002

TITLE:
**ASSY, 65 SERIES
 PX-260**



SIZE	DWG. NO.	REV
C	40018	2
SCALE: 1:5	WEIGHT:	SHEET 1 OF 2



[METRIC] INCH

UNLESS OTHERWISE SPECIFIED:
TOLERANCES: (IN INCHES)

FRACTIONAL: ± 1/32"
ANGULAR: MACH ± 5°
BEND ± 1°
TWO PLACE DECIMAL: ± .01"
THREE PLACE DECIMAL: ± .005"
FOUR PLACE DECIMAL: ± .0002"
SURFACE FINISH:
ON PART 125 RMS
ON O-RING SURFACES 32 RMS

DIMENSIONING AND TOLERANCING PER ANSI Y14.5M (LATEST)

FINISH:

MATERIAL SHOWN

PROPRIETARY AND CONFIDENTIAL
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PRODUCT

DRAWING STATUS

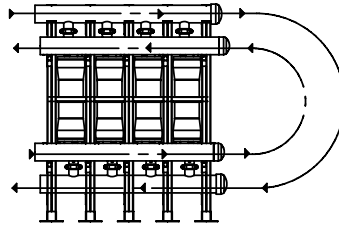
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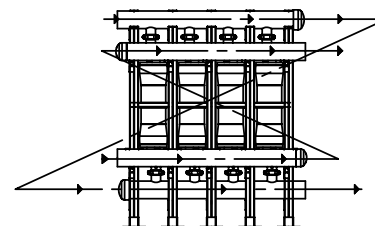
DRAWN	FTM	12/13/2006	TITLE:	ASSY, 65 SERIES PX-260	
CHECKED	JGM	12/18/2002	SIZE	DWG. NO.	REV
ENG APPR	RLS	12/18/2002	C	40018	2
THIRD ANGLE PROJECTION			SCALE: 1:6	WEIGHT:	SHEET 2 OF 2

- NOTES:
- ENERGY RECOVERY INC. PRESSURE EXCHANGER DEVICE PRICES DO NOT INCLUDE ANY PIPING COMPONENTS, MANIFOLDS, RACKS, OR CONNECTION FITTINGS.
 - CUSTOMER TO VERIFY AND PROVIDE MANIFOLD PIPING AND RACKING IN ACCORDANCE WITH ENERGY RECOVERY INC. SPECIFICATIONS AND THEIR OWN PROCESS.
 - ENERGY RECOVERY RESERVES TO RIGHT TO MAKE SPECIFICATION OR DIMENSION CHANGES WITHOUT NOTICE.
 - REFER TO ERI DRAWING #: 40009 FOR PX DEVICE UNIT DIMENSIONS

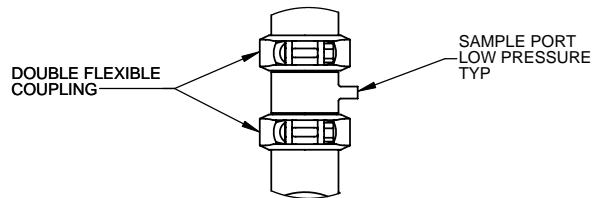
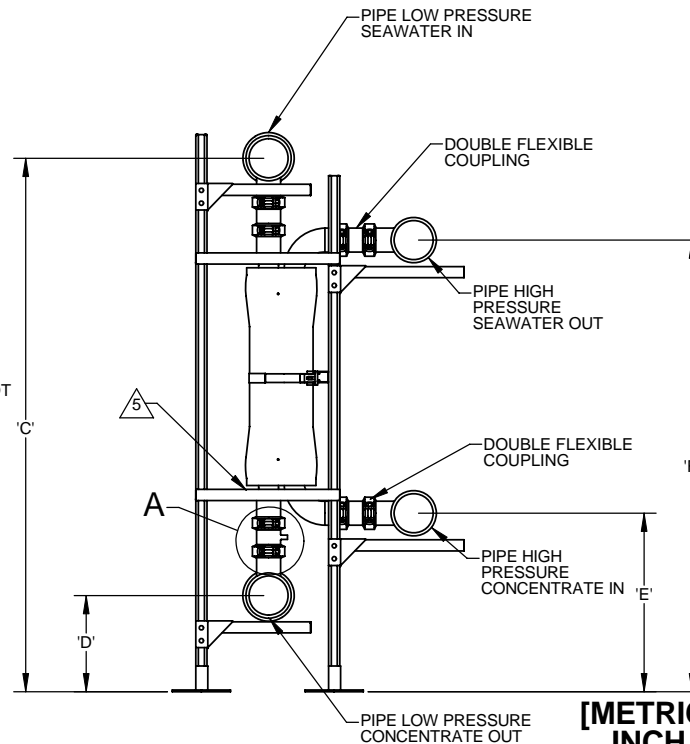
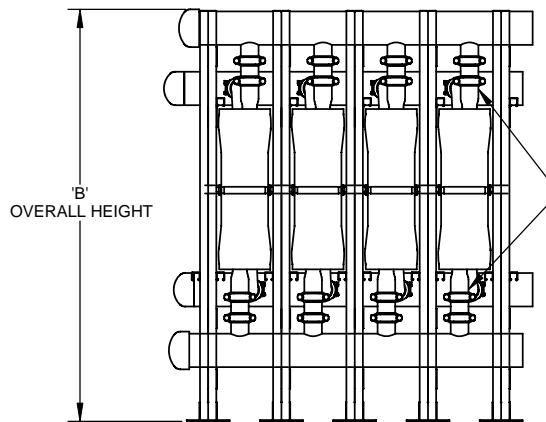
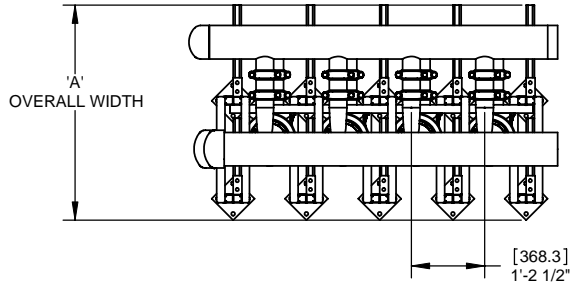
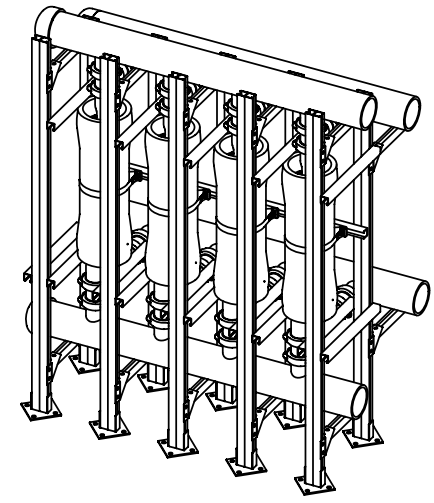
- SUPPORT PX DEVICE BY HOUSING. USE SHIMS UNDER ALL PX DEVICES. ADJUST THICKNESS ACCORDINGLY.
- MAXIMUM HIGH AND LOW PRESSURE INLET VELOCITIES ARE 12 ft/s (3.7 m/s) FOR 'U' CONFIGURATION AND 7 ft/s (2.1 m/s) FOR 'Z' CONFIGURATION. HIGH PRESSURE FLOW CONFIGURATION IS INDEPENDENT OF LOW PRESSURE FLOW CONFIGURATION. SEE DESIGN OF PX DEVICE ARRAYS IN ERI DOCUMENT #80074-01
- PX DEVICE ORIENTATION CAN BE AS SHOWN OR INVERTED.
- A 'T' FLOW MANIFOLD IS CONSIDERED TO BE TWO 'U' FLOW MANIFOLDS FACE TO FACE.



'U' FLOW CONFIGURATION



'Z' FLOW CONFIGURATION



DETAIL A
SCALE 1 : 5

4 PX CONFIGURATION SHOWN

FOR CONCEPT ONLY

PIPE DIA. (in)	A	B	C	D	E	F
DN150 6"	1080	2064	1961	340	646	1659
DN200 8"	1080	2134	1984	313	646	1659
DN250 10"	1130	2369	2166	437	799	1812
DN300 12"	1156	2445	2228	448	837	1850
DN350 14"	1159	2486	2290	481	888	1901
DN400 16"	1232	2537	2312	453	888	1901
DN450 18"	1309	2597	2346	425	888	1901

**[METRIC]
INCH**

UNLESS OTHERWISE SPECIFIED:
TOLERANCES: (IN INCHES)

FRACTIONAL: ± 1/32"
ANGULAR: MACH ± 5°
BEND ± 1°
TWO PLACE DECIMAL: ± .01"
THREE PLACE DECIMAL: ± .005"
FOUR PLACE DECIMAL: ± .0002"
SURFACE FINISH:
ON PART 125 RMS
ON O-RING SURFACES 32 RMS

DIMENSIONING AND TOLERANCING PER ANSI Y14.5M (LATEST)

FINISH:
MATERIAL:
N/A

PROPRIETARY AND CONFIDENTIAL
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INFORMATION

DRAWING STATUS

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REV.	EDN NO.	DESCRIPTION	BY	DATE
2	--	CORRECTED PX POSITIONING	FTM	01/23/2008
1	--	ADDED U AND Z CONFIGURATION ILLUSTRATIONS AND NOTE ON FLOW VELOCITIES AND PX ORIENTATION	FTM	12/18/2007

ERi
ENERGY RECOVERY INC.

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Ph. (510)483-7370 / Fax: (510)483-7371
www.energyrecovery.com

DRAWN: FTM 07/12/2006
CHECKED: JGM 07/25/2006
ENG APPR: RLS 07/25/2006

TITLE:
**GENERAL TRAIN ARRAY
65 SERIES**

SIZE: **C** DWG. NO: **60007** REV: **2**

SCALE: 1:14 WEIGHT: SHEET 1 OF 1

THIRD ANGLE PROJECTION

