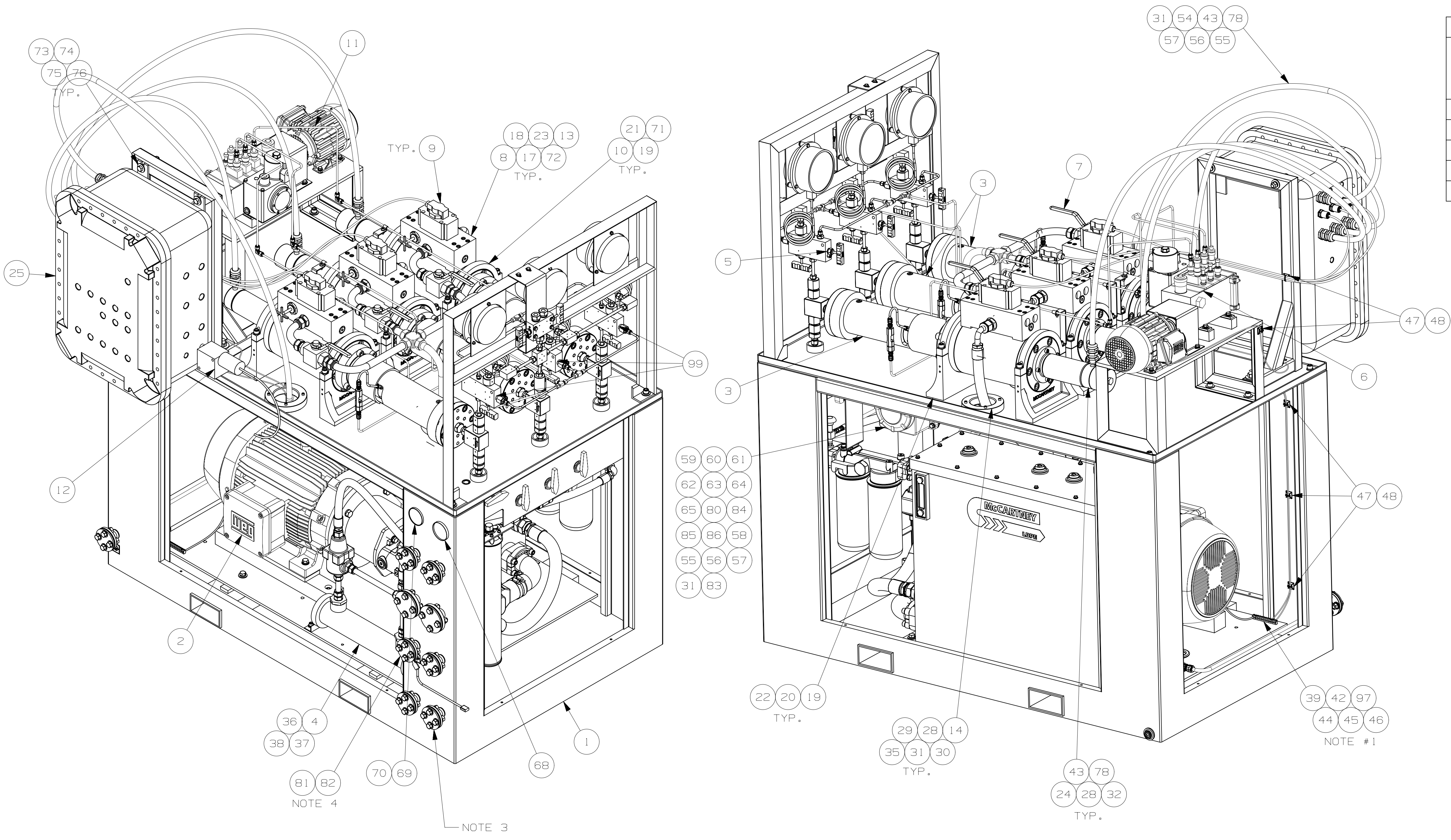


REVISIONS				
ZONE	NO.	DESCRIPTION	DATE	APPROVED
--	2	REMOVE (1) ITEM 80. CHANGE ITEM 83 TO 72137959, WAS 10090884. ADD ITEM 87. ADD INST 28 & 29. REF ECR REV10784.	B. WEIBEL 5/23/13	FRED T. 5/23/13
--	3	AS-BUILT. REF ECR_210.	B. WEIBEL 9/9/13	FRED T. 9/9/13

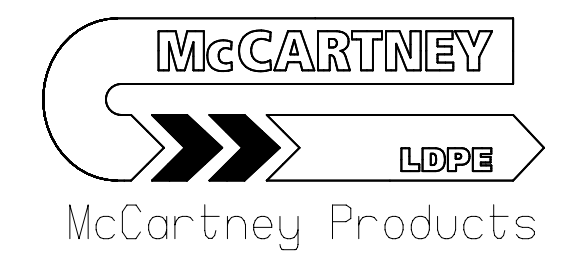
GENERAL NOTES		
DWG. N.	BRASKEM-IDESAS CODE:	DESCRIPTION
REFERENCE DRAWINGS		



- NOTES:**
- CONNECT GROUND BAR ITEM #39 TO THE FOLLOWING COMPONENTS, HYDRAULIC MOTOR USING GROUND WIRE ITEM #42 & #44, LUBE MOTOR USING GROUND WIRE ITEM #45 & #46, ELECTRICAL ASSY ITEM #33 USING GROUND WIRE ITEM #46. EACH COMPONENT MUST BE WIRED TO GROUND BAR ITEM #39 INDIVIDUALLY.
  - PER CUSTOMER'S REQUEST, ALL DIMENSIONS ARE BASIC REFERENCE DIMENSIONS IN MILLIMETERS ONLY.
  - INSTALL BLND KIT PRIOR TO SHIPPING. ITEMS #52 & #53.
  - SHIP ITEMS #81 & #82 LOOSE.

TECHNIMONT PROJECT	CHECKED	DATE
INITIALS	SIGNATURE	
NOT ACCEPTED		
ACCEPTED AS NOTED		
ACCEPTED		

TECHNIMONT'S ACCEPTANCE OF THIS DOCUMENT DOES IN NO WAY RELIEVE THE SUPPLIER OF HIS CONTRACTUAL OBLIGATIONS.



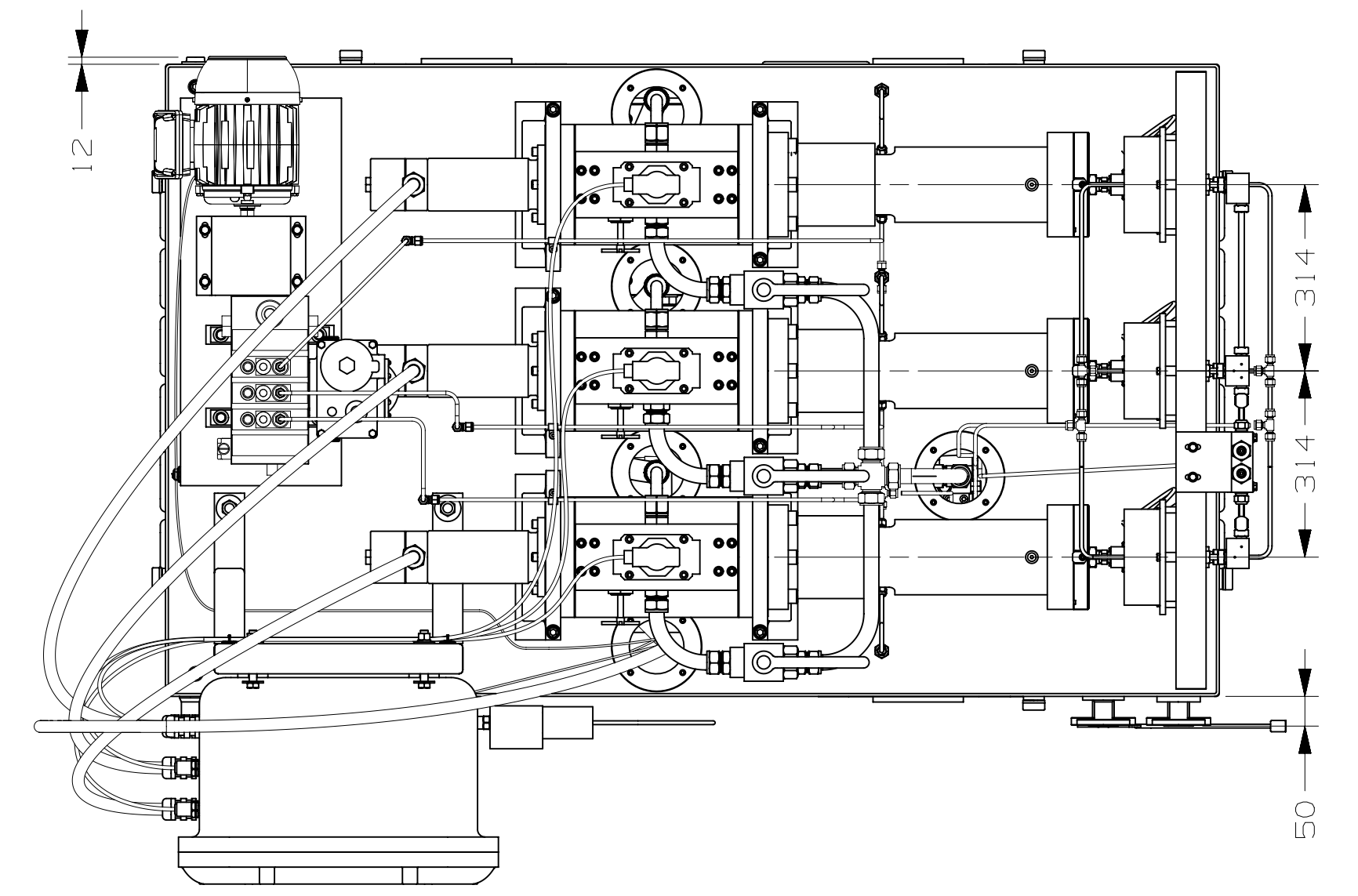
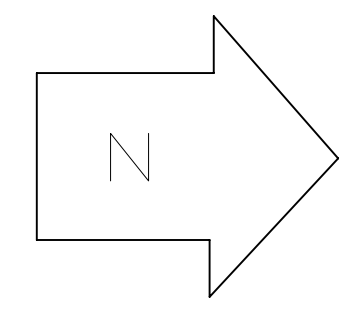
REV	DATE	DESCRIPTION	PREP	CKD	APPR/AUTH
04	08.08.13	FINAL ISSUE	BW	FLT	AB
03	23.05.13	INTERMEDIATE ISSUE	BW	FLT	AB
02	24.01.13	INTERMEDIATE ISSUE	BW	FLT	AB
01	15.10.12	FIRST ISSUE	BW	FLT	AB

Scale		Drawing No	Page	Rev.
		3640-GG-VD-35214004-LG-0024P	04	04
		Project Dept DocType MR n. Equip Id. doc. Type seqNo doc. Issue Index	1 OF 5	
		BRASKEM-IDESAS CODE: EXX1-3704-60-57-VD-DGA-0024		

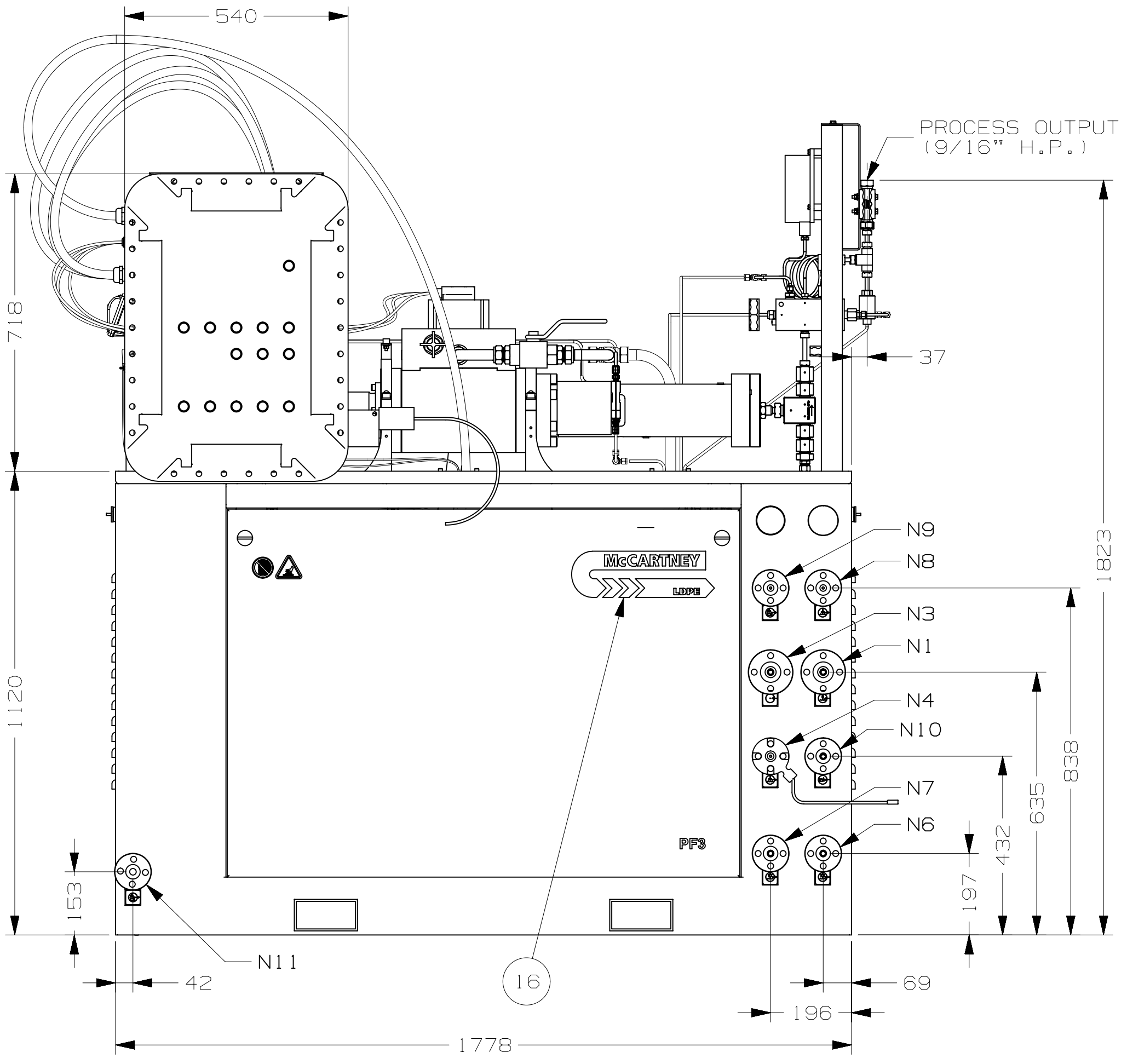
Copyright © 2003 KMT Waterjet Systems All Rights Reserved	<b>PROPRIETARY NOTICE</b> This document contains confidential and trade secret information, is the property of KMT Waterjet Systems, and is given to the receiver in confidence. The receiver by reception and retention of the document accepts the document in confidence and agrees that, except as authorized in writing by KMT Waterjet Systems, it will (1) not use the document or any copy thereof or the confidential or the trade secret information therein; (2) not copy the document; (3) not disclose to others either the document or the confidential or trade secret information therein; and (4) upon completion of the need to retain the document, or upon demand, return the document, all copies thereof, and all material copied therefrom.	<b>STANDARD TOLERANCES</b> UNLESS OTHERWISE NOTED: -ALL DIAMETERS ON COMMON CENTERLINE COAXIAL TO .005 (1.12) -BREAK SHARP EDGES -AND CORNERS .015 (1.38) -SURFACE FINISH √ [1.6] -STANDARD TOLERANCES X.XX = ±.063 (1.6) X.XX = ±.015 (1.38) X.XXX = ±.005 (1.12) ANGLE = ± 2°	GD&T TO ASME Y14.5M 1994	THIRD ANGLE PROJECTION NEXT ASSY REF. DWG 72121791P DRAWN B. WEIBEL DATE 12/20/12 CHECKED FRED T. 12/20/12 ENG. APPROVAL FRED T. 12/20/12	McCartney Products INT UNIT PF-3, 5.5X.875-6, 460/3/60, BRASKEM	SIZE --- CODE IDENT NO. --- DWG. NO. 72128846P TITLE BLOCK REVISION: 3 SHEET 1 OF 10
---	---	---	--------------------------	--	---	---

REVISIONS				
ZONE	NO.	DESCRIPTION	DATE	APPROVED
GENERAL NOTES				
DWG N.	BRASKEM-IDES A CODE:			DESCRIPTION
REFERENCE DRAWINGS				

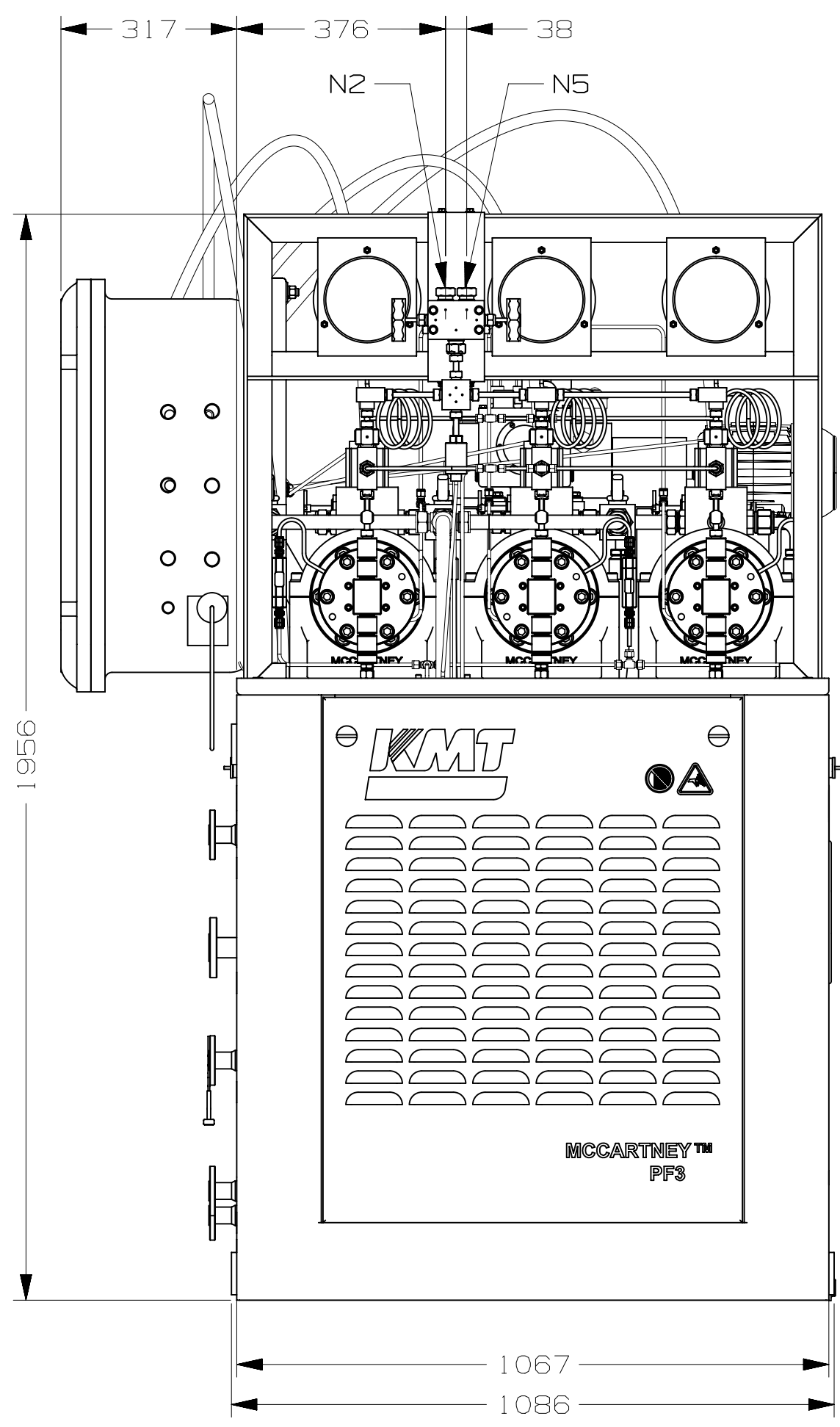
NO.	DESCRIPTION	SIZE
N1	PROCESS INPUT	1" 150# WN-RF
N2	PROCESS OUTPUT	9/16" HP FTE
N3	NITROGEN INPUT	1" 150# WN-RF
N4	PSE WASTE	1/2" 150# WN-RF
N5	PEROXIDE BLEED/WASTE	9/16" HP FTE
N6	COOLING WATER IN	1/2" 150# WN-RF
N7	COOLING WATER OUT	1/2" 150# WN-RF
N8	HP MANIFOLD/CYLINDER BLEED	1/2" 150# WN-RF
N9	LUBE OIL WASTE	1/2" 150# WN-RF
N10	HYDRAULIC OIL IN	1/2" 150# WN-RF (NOT USED)
N11	HYDRAULIC OIL DRAIN	1/2" 150# WN-RF (NOT USED)
N12	FRAME DRAIN	1/2" NPT (PLUGGED)



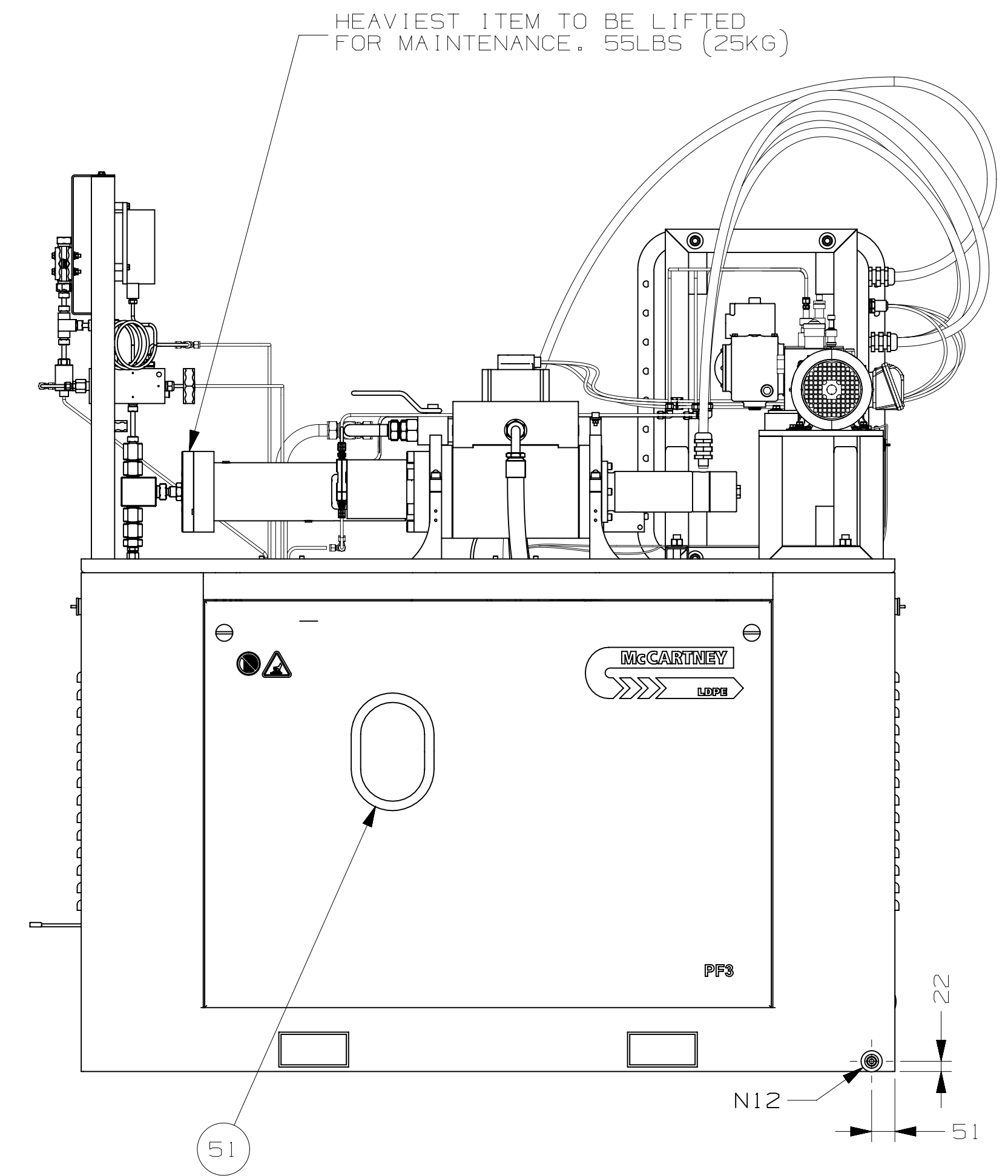
TOP VIEW



EAST VIEW



NORTH VIEW



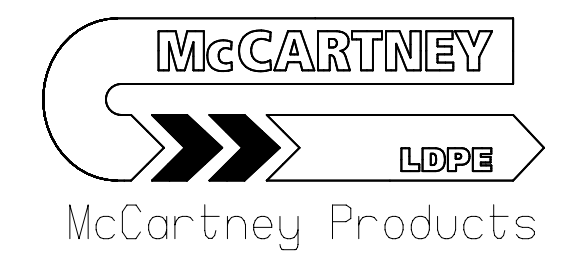
WEST VIEW

WEIGHT: APPROX. 4720LBS (2140KG)

NOTE:  
1. PER CUSTOMER'S REQUEST, ALL DIMENSIONS ARE BASIC REFERENCE DIMENSIONS IN MILLIMETERS ONLY.

TECHNIMONT PROJECT	CHECKED	DATE
INITIALS	SIGNATURE	
NOT ACCEPTED		
ACCEPTED AS NOTED		
ACCEPTED		

TECHNIMONT'S ACCEPTANCE OF THIS DOCUMENT DOES IN NO WAY RELIEVE THE SUPPLIER OF HIS CONTRACTUAL OBLIGATIONS.



REV	DATE	DESCRIPTION	PREP	CKD	APPR/AUTH
04	08.08.13	FINAL ISSUE	BW	FLT	AB
03	23.05.13	INTERMEDIATE ISSUE	BW	FLT	AB
02	24.01.13	INTERMEDIATE ISSUE	BW	FLT	AB
01	15.10.12	FIRST ISSUE	BW	FLT	AB

CONTRACTOR CODE: **Etilemo** **Tecnimont**

PROJECT: **ETILENO XXI PROJECT BRASKEM IDESA SAPI**

DRAWING TITLE: **60-P-1001 A/B**

Scale	Drawing No	Page	Rev.
	3640-66-VD-35214004-LG-0024P	04	
	Project Dept Doc.Type MR n. Equip Id. doc. type seq.No doc. part index	2 OF 5	04

BRASKEM-IDES A CODE: EXXI-3704-60-57-VD-DGA-0024

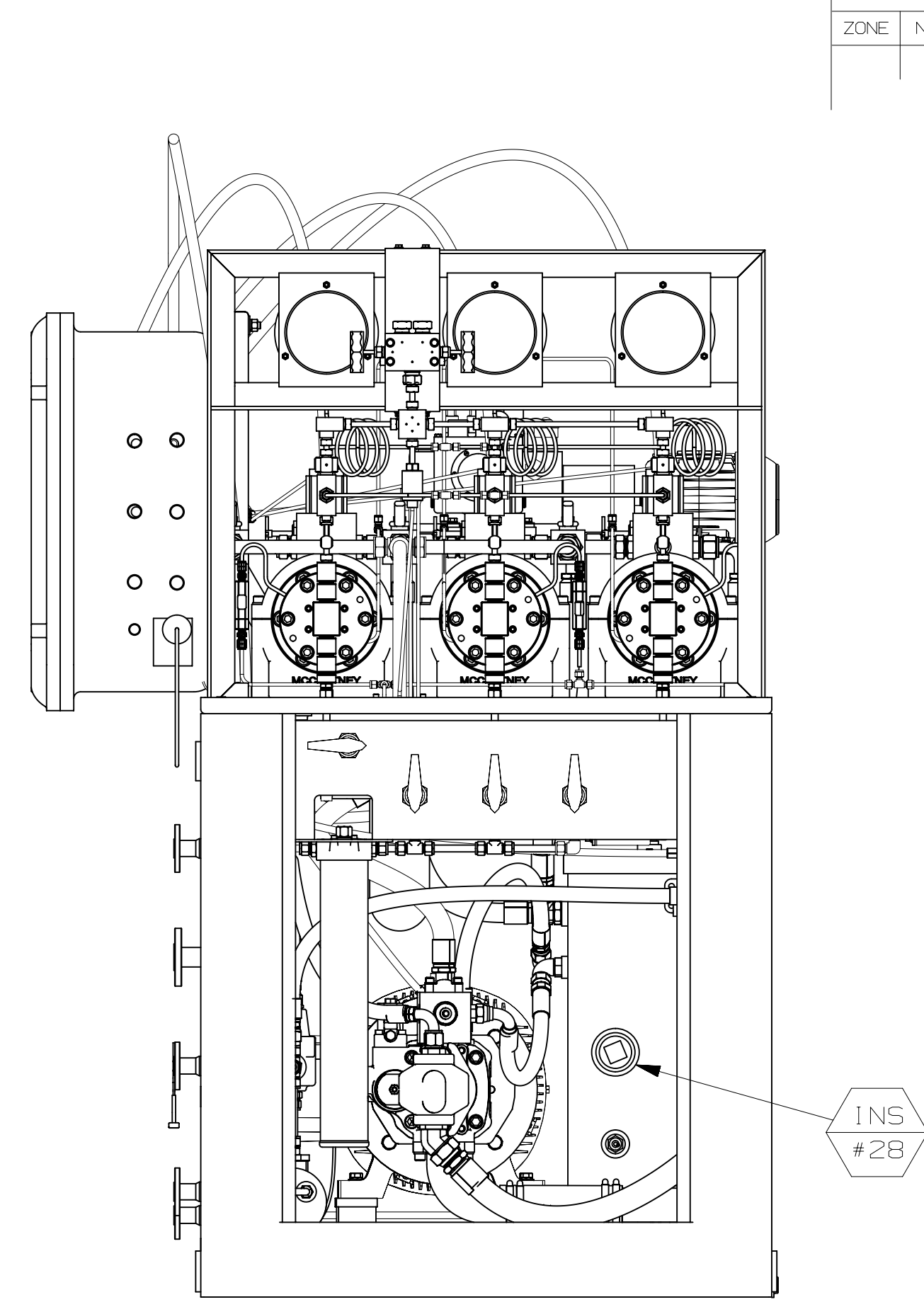
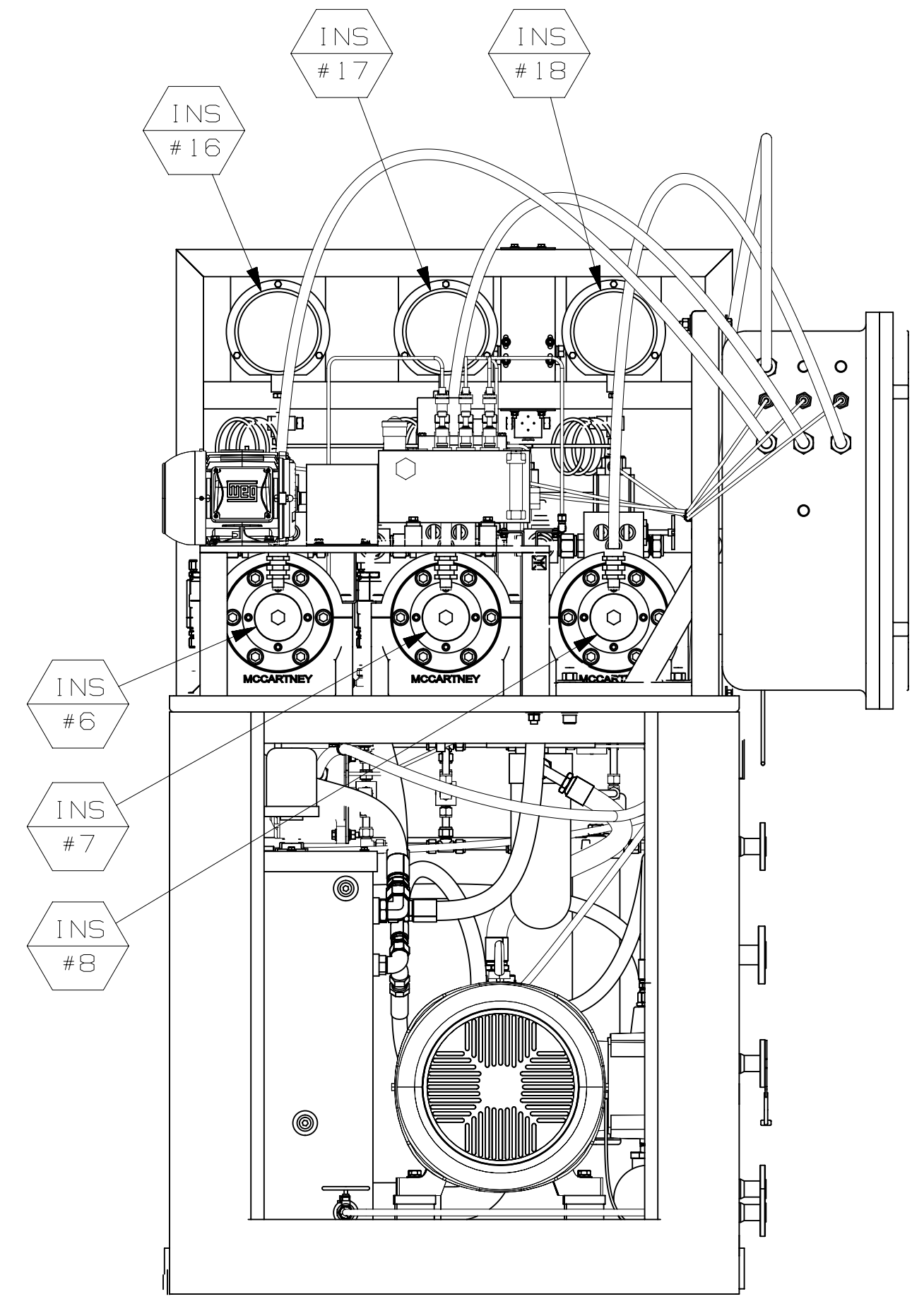
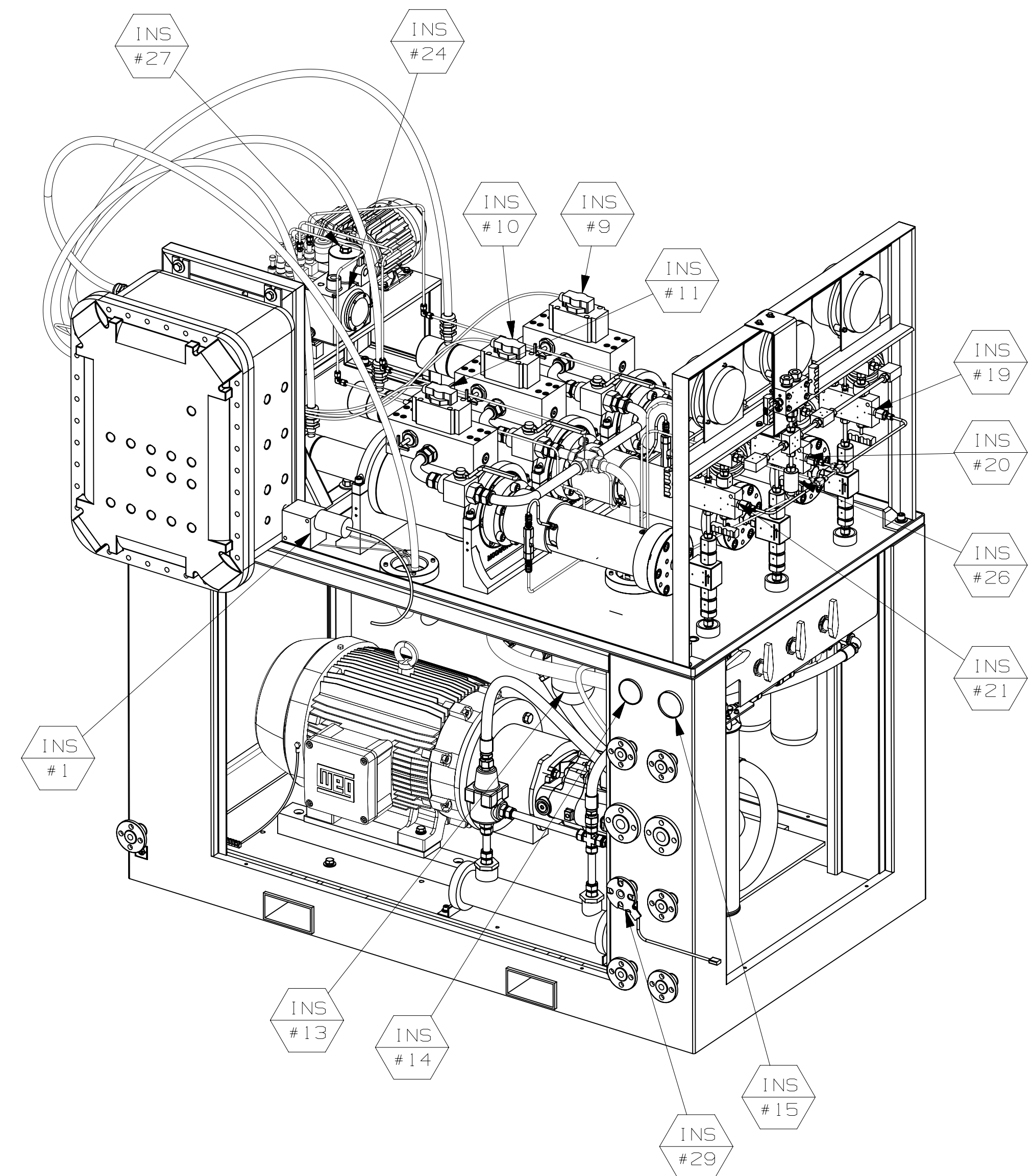
Copyright © 2003 KMT Waterjet Systems All Rights Reserved	<b>PROPRIETARY NOTICE</b> This document contains confidential and trade secret information, is the property of KMT Waterjet Systems, and is given to the receiver in confidence. The receiver by reception and retention of the document accepts the document in confidence and agrees that, except as authorized in writing by KMT Waterjet Systems, it will (1) not use the document or any copy thereof or the confidential or the trade secret information therein; (2) not copy the document; (3) not disclose to others either the document or the confidential or trade secret information therein; and (4) upon completion of the need to retain the document, or upon demand, return the document, all copies thereof, and all material copied therefrom.	<b>STANDARD TOLERANCES</b> UNLESS OTHERWISE NOTED: -ALL DIAMETERS ON COMMON CENTERLINE COAXIAL TO .005 (1.12) -BREAK SHARP EDGES AND CORNERS .015 (1.38) -SURFACE FINISH √ [1.6] -STANDARD TOLERANCES X.XX : ± .063 [1.6] X.XX : ± .015 [1.38] X.XXX : ± .005 [1.2] ANGLE : ± 2°	GD&T TO ASME Y14.5M 1994 ALL DIMENSIONS IN INCHES (mm) MATERIAL : - - - - - HEAT TREAT : - - - - - HARDNESS : - - - - -	THIRD ANGLE PROJECTION NEXT ASSY : - - - - - REF. DWG : 72121791P DRAWN : B WEIBEL DATE : 12/20/12 CHECKED : FRED T. DATE : 12/20/12 ENG. APPROVAL : FRED T. DATE : 12/20/12	McCartney LDPE logo	INT UNIT PF-3, 5.5X.875-6, 460/3/60, BRASKEM	McCartney Products logo	72128846P	REV 3
---	---	---	---	--	---------------------	---	-------------------------	-----------	-------

SCALE: - - - - - TITLE BLOCK REVISION: 3 SHEET 2 OF 10



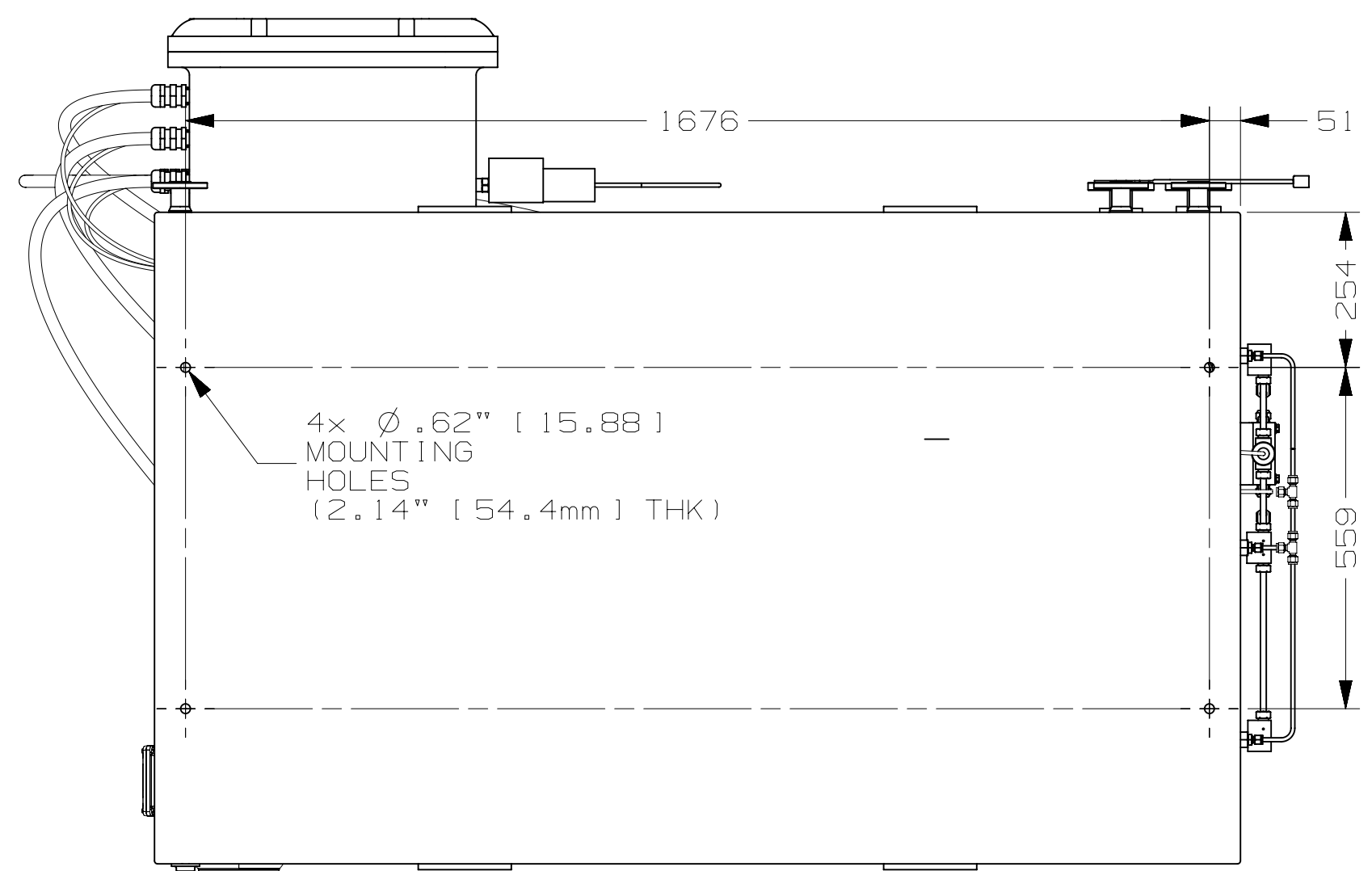
REVISIONS				
ZONE	NO.	DESCRIPTION	DATE	APPROVED

GENERAL NOTES		
DWG N.	BRASKEM-IDESEA CODE:	DESCRIPTION
REFERENCE DRAWINGS		



SOUTH VIEW

NORTH VIEW



ANCHOR DIMENSIONS

INST	1001A	1001B	INSTRUMENT TYPE
INST 1	TSH0100	TSH0200	TEMPERATURE SWITCH/ELEMENT
INST 2	PSV0951	PSV0952	PRESSURE SAFETY VALVE
INST 3	F10103	F10203	FLOW GAGE
INST 4	F10104	F10204	FLOW GAGE
INST 5	F10102	F10202	FLOW GAGE
INST 6	ZE0100	ZE0200	POSITION SENSOR
INST 7	ZE0101	ZE0201	POSITION SENSOR
INST 8	ZE0102	ZE0202	POSITION SENSOR
INST 9	ZV0100	ZV0200	FLOW CONTROL VALVE
INST 10	ZV0101	ZV0201	FLOW CONTROL VALVE
INST 11	ZV0102	ZV0202	FLOW CONTROL VALVE
INST 12	PD10100	PD10200	DIFFERENTIAL PRESSURE INDICATOR
INST 13	PD10101	PD10201	DIFFERENTIAL PRESSURE INDICATOR
INST 14	PI0103	PI0203	PRESSURE INDICATOR
INST 15	PI0104	PI0204	PRESSURE INDICATOR
INST 16	PI0100	PI0200	PRESSURE INDICATOR
INST 17	PI0101	PI0201	PRESSURE INDICATOR
INST 18	PI0102	PI0202	PRESSURE INDICATOR
INST 19	PSE0100	PSE0200	PRESSURE SAFETY EQUIPMENT
INST 20	PSE0101	PSE0201	PRESSURE SAFETY EQUIPMENT
INST 21	PSE0102	PSE0202	PRESSURE SAFETY EQUIPMENT
INST 22	LI0101	LI0201	LIQUID LEVEL SIGHT GLASS W/INDICATOR
INST 23	TI0101	TI0201	TEMPERATURE INDICATOR
INST 24	LI0102	LI0202	LIQUID LOW LEVEL SWITCH W/SIGHT GLASS
INST 25	TCV0102	TCV0202	3-WAY THERMOSTATIC VALVE
INST 26	PT0105	PT0205	PRESSURE TRANSDUCER
INST 27	LSL0100	LSL0200	LOW LEVEL SWITCH LUBE OIL
INST 28	HE-1031	HE-1041	OIL TANK HEATER
INST 29	FSH-0106	FSH-0206	RUPTURE DISC FLOW SWITCH

Copyright © 2003  
KMT Waterjet Systems  
All Rights Reserved

**WARNING !**  
The export or reexport of this drawing or a product produced by this drawing is subject to U.S. Export Administration regulations and other applicable governmental restrictions or regulations.

**PROPRIETARY NOTICE**  
This document contains confidential and trade secret information, is the property of KMT Waterjet Systems, and is given to the receiver in confidence. The receiver by reception and retention of the document accepts the document in confidence and agrees that, except as authorized in writing by KMT Waterjet Systems, it will (1) not use the document or any copy thereof or the confidential or trade secret information therein; (2) not copy the document; (3) not disclose to others either the document or the confidential or trade secret information therein; and (4) upon completion of the need to retain the document, or upon demand, return the document, all copies thereof, and all material copied therefrom.

**STANDARD TOLERANCES**  
UNLESS OTHERWISE NOTED:  
-ALL DIAMETERS ON COMMON CENTERLINE COAXIAL TO .005 (1.12)  
-BREAK SHARP EDGES AND CORNERS .015 (1.38)  
-SURFACE FINISH  $\sqrt{1.6}$   
-STANDARD TOLERANCES  
X.XX : ± .063 (1.6)  
X.XX : ± .015 (1.38)  
X.XXX : ± .005 (1.12)  
ANGLE : 2°

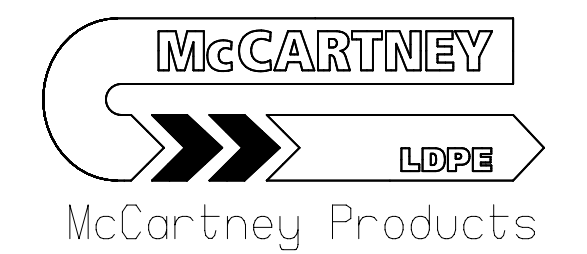
GD&T TO ASME Y14.5M 1994  
THIRD ANGLE PROJECTION  
NEXT ASSY  
REF. DWG 72121791P  
DRAWN B. WEIBEL DATE 12/20/12  
CHECKED FRED T. DATE 12/20/12  
ENS. APPROVAL FRED T. DATE 12/20/12

McCartney Products  
INT UNIT PF-3,  
5.5X.875-6,  
460/3/60,  
BRASKEM

72128846P  
REV 3

NOT ACCEPTED	ACCEPTED AS NOTED	ACCEPTED

TECNIMONT'S ACCEPTANCE OF THIS DOCUMENT DOES IN NO WAY RELIEVE THE SUPPLIER OF HIS CONTRACTUAL OBLIGATIONS.



REV	DATE	DESCRIPTION	PREP	CKD	APPR/AUTH
04	08.08.13	FINAL ISSUE	BW	FLT	AB
03	23.05.13	INTERMEDIATE ISSUE	BW	FLT	AB
02	24.01.13	INTERMEDIATE ISSUE	BW	FLT	AB
01	15.10.12	FIRST ISSUE	BW	FLT	AB



CONTRACTOR CODE: ETILENO XXI PROJECT BRASKEM IDESA SAPI

60-P-1001 A/B

Scale	Drawing No	Page	Rev.
	3640-GG-VD-35214004-LG-0024P	04	04
	Project Dept DocType MR n. Equip Id. doc. Type seqNo doc. Issue Index	3 OF 5	04

BRASKEM-IDESEA CODE: EXX1-3704-60-57-VD-DGA-0024

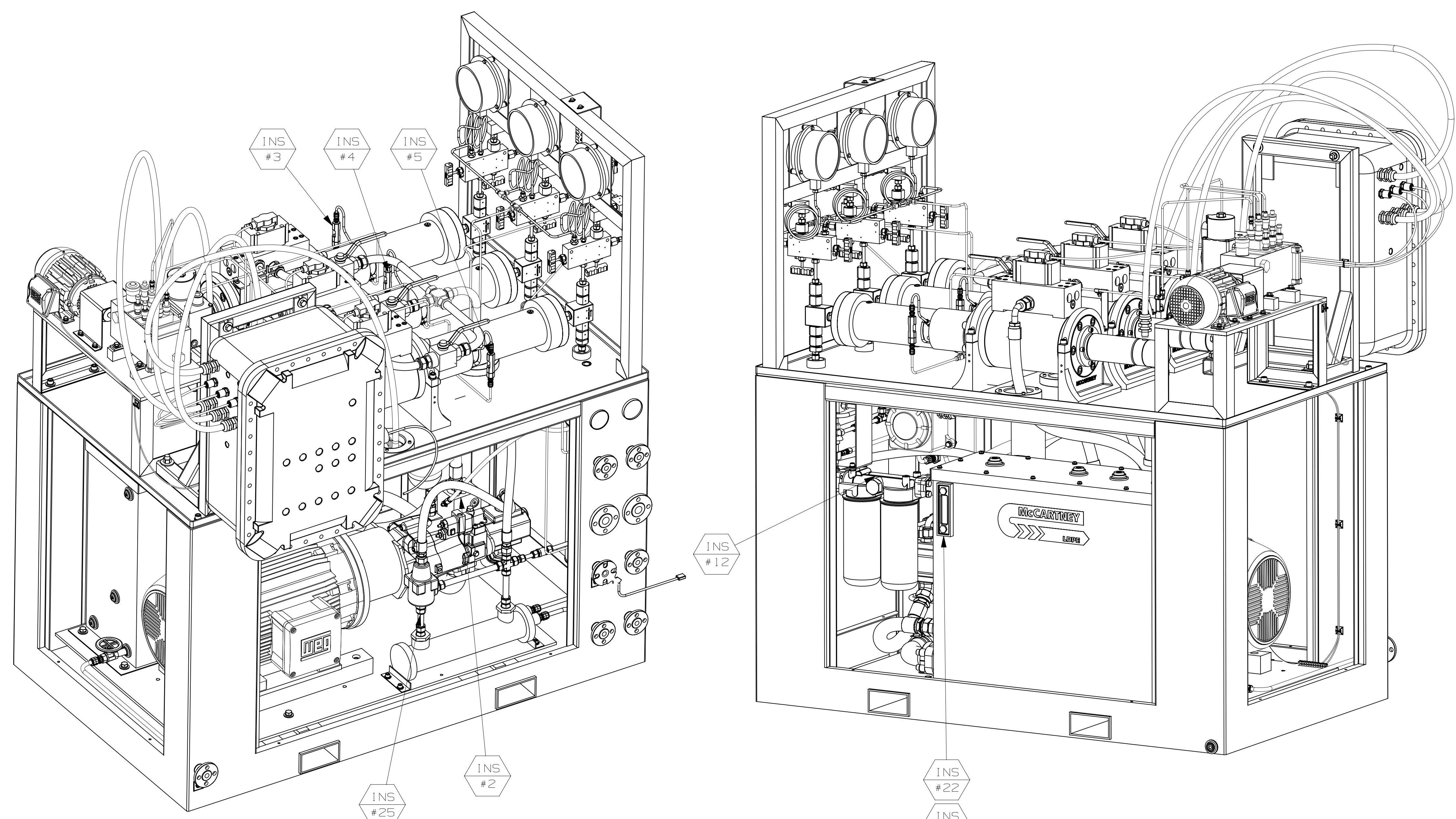
NOTE:  
1. PER CUSTOMER'S REQUEST, ALL DIMENSIONS ARE BASIC REFERENCE DIMENSIONS IN MILLIMETERS ONLY.



McCartney Products  
72128846P  
REV 3  
SCALE: --- TITLE BLOCK REVISION: 3 SHEET 3 OF 10

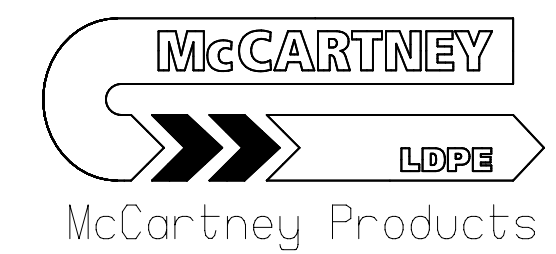
REVISIONS				
ZONE	NO.	DESCRIPTION	DATE	APPROVED

GENERAL NOTES		
DWG N.	BRASKEM-IDESIA CODE:	DESCRIPTION
REFERENCE DRAWINGS		



TECHNIMONT PROJECT	CHECKED	DATE
INITIALS	SIGNATURE	
NOT ACCEPTED		
ACCEPTED AS NOTED		
ACCEPTED		

TECHNIMONT'S ACCEPTANCE OF THIS DOCUMENT DOES IN NO WAY RELIEVE THE SUPPLIER OF HIS CONTRACTUAL OBLIGATIONS.



REV	DATE	DESCRIPTION	PREP	CKD	APPR/AUTH
04	08.08.13	FINAL ISSUE	BW	FLT	AB
03	23.05.13	INTERMEDIATE ISSUE	BW	FLT	AB
02	24.01.13	INTERMEDIATE ISSUE	BW	FLT	AB
01	15.10.12	FIRST ISSUE	BW	FLT	AB



CONTRACTOR CODE: ETILENO XXI PROJECT BRASKEM IDESA SAPI

60-P-1001 A/B

Scale	Drawing No	Page	Rev.
	3640-06-VD-35214004-LG-0024P	04	
	Project Dept Doc.Type MR n. Equip Id. doc. Type seq.No. doc. Issue Index	4 OF 5	04
BRASKEM-IDESIA CODE: EXXI-3704-60-57-VD-DGA-0024			

NOTE:  
1. PER CUSTOMER'S REQUEST, ALL DIMENSIONS ARE BASIC REFERENCE DIMENSIONS IN MILLIMETERS ONLY.

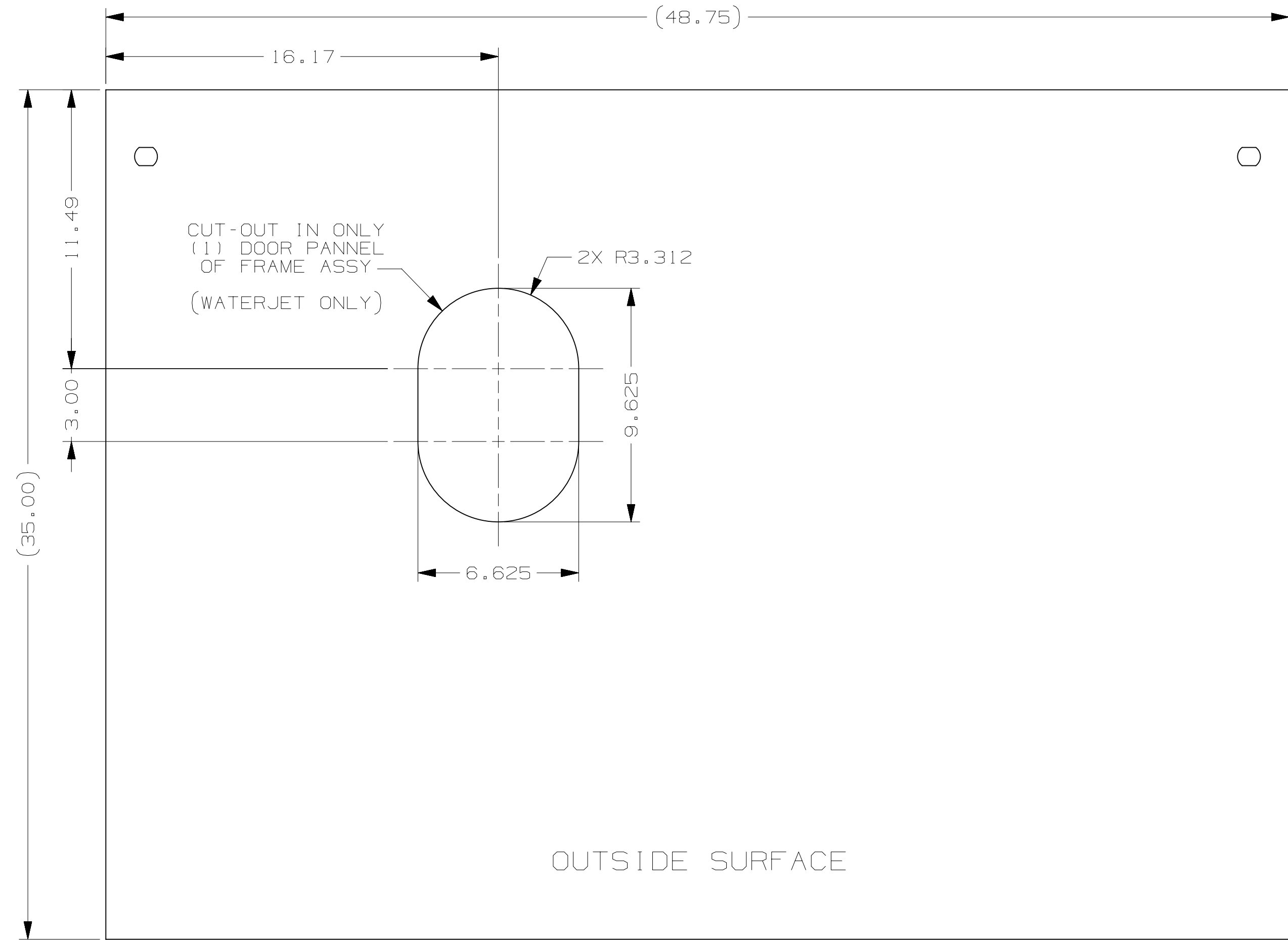
Copyright © 2003 KMT Waterjet Systems All Rights Reserved	<b>PROPRIETARY NOTICE</b> This document contains confidential and trade secret information, is the property of KMT Waterjet Systems, and is given to the receiver in confidence. The receiver by reception and retention of the document accepts the document in confidence and agrees that, except as authorized in writing by KMT Waterjet Systems, it will (1) not use the document or any copy thereof or the confidential or the trade secret information therein; (2) not copy the document; (3) not disclose to others either the document or the confidential or trade secret information therein; and (4) upon completion of the need to retain the document, or upon demand, return the document, all copies thereof, and all material copied therefrom.	<b>STANDARD TOLERANCES</b> UNLESS OTHERWISE NOTED: -ALL DIAMETERS ON COMMON CENTERLINE COAXIAL TO .005 (1.12) -BREAK SHARP EDGES AND CORNERS .015 (1.38) -SURFACE FINISH $\sqrt{1.6}$ -STANDARD TOLERANCES X.XX = ±.063 (1.6) X.XX = ±.015 (1.38) X.XXX = ±.005 (1.12) ANGLE = 2°	GD&T TO ASME Y14.5M 1994 THIRD ANGLE PROJECTION NEXT ASSY REF. DWG 72121791P DRAWN B. WEIBEL DATE 12/20/12 CHECKED FRED T. DATE 12/20/12 ENG. APPROVAL FRED T. DATE 12/20/12	MATERIAL HEAT TREAT HARDNESS	ALL DIMENSIONS IN INCHES (mm) 72128846P CODE IDENT NO. DWG. NO. 72128846P REV 3	<p>INT UNIT PF-3, 5.5X.875-6, 460/3/60, BRASKEM</p>
---	---	--	--	------------------------------------	---	---



SCALE: -----	TITLE BLOCK REVISION: 3	SHEET 4 OF 10
--------------	-------------------------	---------------

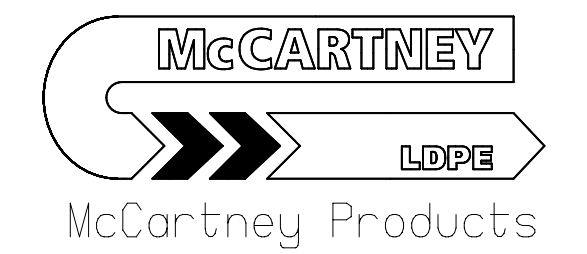
REVISIONS				
ZONE	NO.	DESCRIPTION	DATE	APPROVED
--	1	ADD KIT-SND INSUL, ADD JUNCTION BOX, ADD WINDOW TO DOOR, ADD BLIND KIT FOR SHIPPING, CUSTOMER CHANGES, REF ECR REV10742	B. WEIBEL 4/29/13	FRED T. 4/29/13

GENERAL NOTES		
DWG N.	BRASKEM-IDES CODE:	DESCRIPTION
REFERENCE DRAWINGS		



McCartney PROFILES	CHECKED		DATE
	INITIALS	SIGNATURE	
NOT ACCEPTED			
ACCEPTED AS NOTED			
ACCEPTED			

TECHNOMONT'S ACCEPTANCE OF THIS DOCUMENT DOES IN NO WAY RELIEVE THE SUPPLIER OF HIS CONTRACTUAL OBLIGATIONS.



REV	DATE	DESCRIPTION	PREP	CKD	APPR/AUTH
04	09.09.13	FINAL ISSUE	BW	FLT	AB
03	23.05.13	INTERMEDIATE ISSUE	BW	FLT	AB
02	24.01.13	INTERMEDIATE ISSUE	BW	FLT	AB
01	15.10.12	FIRST ISSUE	BW	FLT	AB

CONTRACTOR CODE: ETILENO XXI PROJECT BRASKEM IDESA SAPI

60-P-1001 A/B

Scale	Drawing No	Page	Rev.
	3640-66-VD-35214004-LG-0024P	04	04
	Project Dept Doc.Type MR n. Equip Id. Doc. Type seq.No Doc. Issue Date		
	BRASKEM-IDES CODE: EXXI-3704-60-57-VD-DGA-0024		

- NOTE:
- AFTER WATERJET CUT IS MADE USE TOUCH UP PAINT TO COVER EXPOSED METAL.
  - DOOR PANEL DETAIL PROVIDED FOR FABRICATION AT KMT McCARTNEY DIMENSIONS SHOWN IN INCHES

Copyright © 2003 KMT Waterjet Systems All Rights Reserved	<p>PROPRIETARY NOTICE</p> <p>This document contains confidential and trade secret information, is the property of KMT Waterjet Systems, and is given to the receiver in confidence. The receiver by reception and retention of the document accepts the document in confidence and agrees that, except as authorized in writing by KMT Waterjet Systems, it will (1) not use the document or any copy thereof or the confidential or the trade secret information therein; (2) not copy the document; (3) not disclose to others either the document or the confidential or trade secret information therein; and (4) upon completion of the need to retain the document, or upon demand, return the document, all copies thereof, and all material copied therefrom.</p>	<p>STANDARD TOLERANCES</p> <p>UNLESS OTHERWISE NOTED:</p> <p>-ALL DIAMETERS ON COMMON CENTERLINE COAXIAL TO .005 [0.12]</p> <p>-BREAK SHARP EDGES AND CORNERS .015 [0.38]</p> <p>-SURFACE FINISH <math>\sqrt{1.6}</math></p> <p>-STANDARD TOLERANCES</p> <p>X.X = ±.063 [1.6]</p> <p>X.XX = ±.015 [0.38]</p> <p>X.XXX = ±.005 [0.12]</p> <p>ANGLE = 2°</p>	<p>GD&amp;T TO ASME Y14.5M 1994</p> <p>ALL DIMENSIONS IN INCHES [mm]</p> <p>MATERIAL -----</p> <p>HEAT TREAT -----</p> <p>HARDNESS -----</p>	<p>THIRD ANGLE PROJECTION</p> <p>NEXT ASSY -----</p> <p>REF. DWG 72121791P</p> <p>DRAWN B. WEIBEL DATE 12/20/12</p> <p>CHECKED FRED T. DATE 12/20/12</p> <p>ENG. APPROVAL FRED T. DATE 12/20/12</p>	<p>McCartney LDPE</p> <p>McCartney Products</p> <p>INT UNIT PF-3, 5.5X.875-6, 460/3/60, BRASKEM</p>	<p>TITLE</p> <p>72128846P</p> <p>REV 3</p> <p>SCALE: -----</p> <p>TITLE BLOCK REVISION: 3</p> <p>SHEET 5 OF 10</p>
---	---	--	--	---	---	--