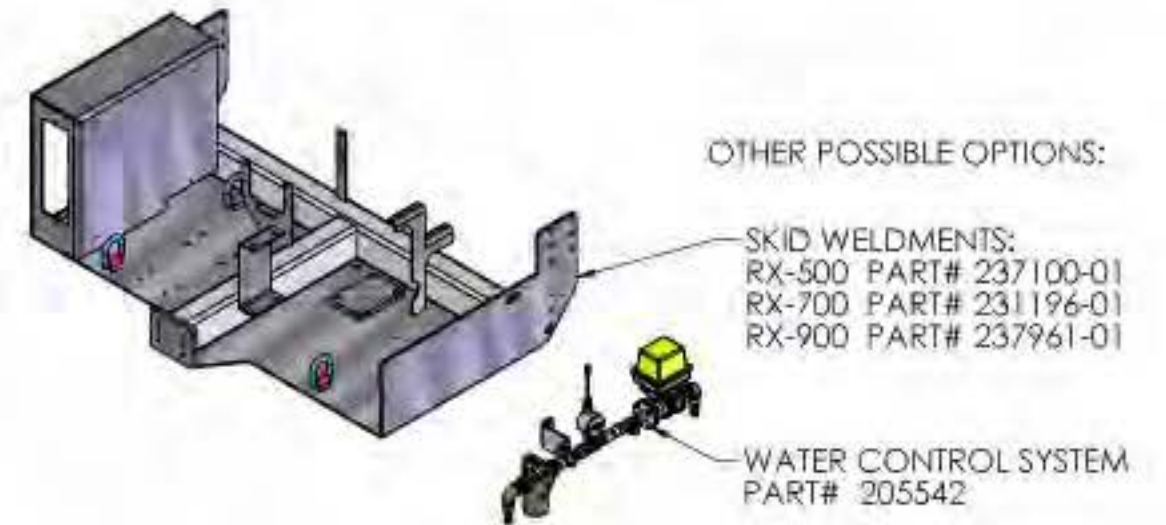


REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROV
	A	RAISED INTAKE STRAINER ASM (205534) UP 2"	1/12/10	RC/BM/DP
	B	VLV/CONTR BOX UPDATES, FLANGES, GUARD, MISC.	2/27/10	JDC/RTC
	C	MADE CHANGED ON 205588, 205534, & THIS ASM	4/7/10	JDC/KLH
	D	FIXED MATES BECAUSE OF SOME PART CHANGES	4/5/11	BM/JDC
	E	REPLACED 205565 WITH NEW ASSEMBLY 205964	11/3/2011	BM



ITEM NO.	PART NUMBER	MorB	DESCRIPTION	QTY.
1	204309-L-L	B	METER 450M LEFT PORT-LOW SHAFT	1
2	204338-LTL	B	PUMP 300 MOD LH PORT, TOP INL, LOW SHFT	1
3	205086	B	GASKET 300 PUMP (204338)	1
4	FIT-29100	B	COUPLING GROOVED MARK II STEEL 2 IN	3
5	203979	M	GEAR ASM 44 TEETH CIR	1
6	204449	M	FLANGE WDMT 450M METER/PUMP	1
7	204892	M	SPREAD CIRC VLV ASM W/2" VIC.	1
8	204982	M	FILTER ASM W/O HOT OIL CIR	1
9	205534	M	INTAKE STRAINER ASM RX-700 NO OIL	1
10	205546	M	PLBG ASM PUMP OUTLET	1
11	205547	M	PLUMBING ASM METER OUTLET	1
12	205572	M	PLBG ASM PUMP OUTLET TO CANISTER INLET	1
13	205588	M	SPREAD CIR VLV PLBG ASM	1
14	205597	M	CTRL BOX ASM UNIV RX MILLG MACH SKID ASM	1
15	205964	M	GUARD ASM RX-MILLING MACH	1
16	FIT-26039	M	3 IN CAP & CHAIN ASSY	1
17	OPT-94001	M	REAR FLUSH VALVE ASM	1
18	VLV-29294	M	VALVE GATE 3 IN MODIFIED	1

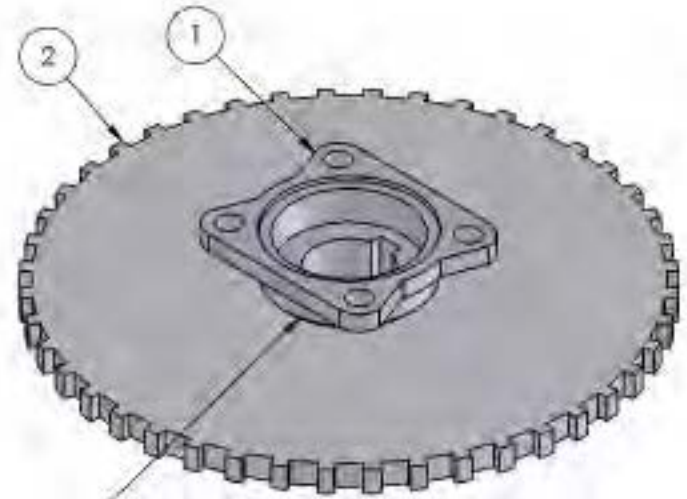
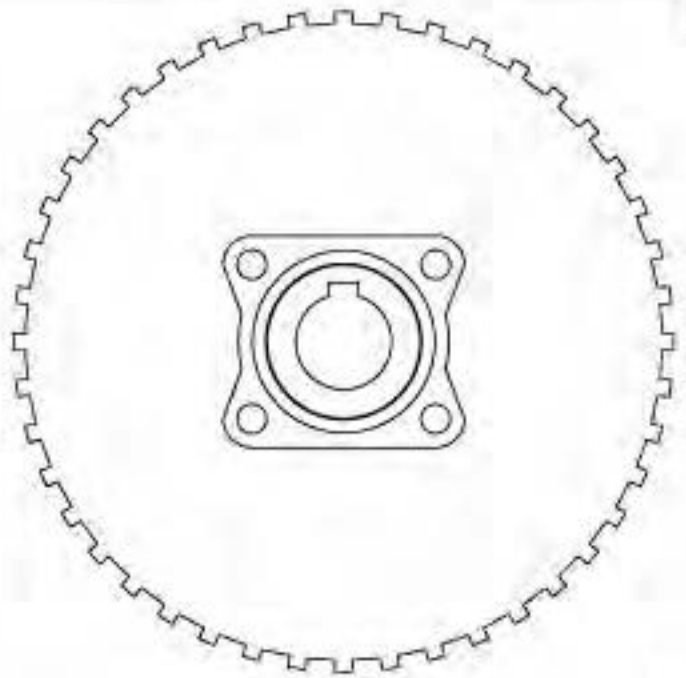
CONVERSION CHART			
1/16" = .0625	9/16" = .5625		
1/8" = .125	5/8" = .625		
3/16" = .1875	11/16" = .6875		
1/4" = .250	3/4" = .750		
5/16" = .3125	13/16" = .8125		
3/8" = .375	7/8" = .875		
7/16" = .4375	15/16" = .9375		
1/2" = .50	1" = 1.00		



UNLESS OTHERWISE SPECIFIED:			
	NAME	DATE	
DRAWN	DMP	11-24-09	
CHECKED			
ENG APPE	RTC	11-24-09	
DO NOT SCALE DRAWING			
MATERIAL	MAKE OR BUY:	M	
FINISH			
SCALE			

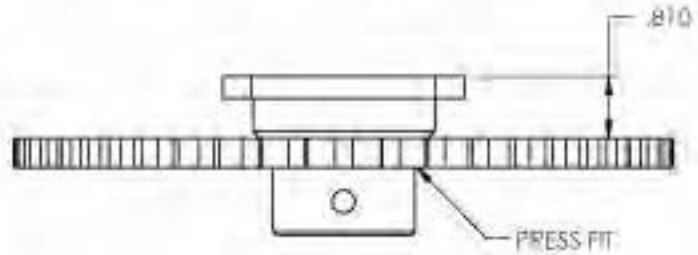
BEARCAT MFG.		
TITLE: RX MILLING MACHINE ADDITIVE SYSTEM ASM		
Universal RX Milling skid		
SIZE	DWG. NO.	REV
B	205457	E
SCALE: NONE	WEIGHT: 2219.43	SHEET 1 OF 2

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED



TACK WELD 4 PLG
OPPOSITE SIDES
TO AVOID WARPING

NOTE: CHECK RUNOUT AFTER
WELDING. SIDES MUST BE CON-
CENTRIC $\pm .002$ TO TAPERED
BORE OF COMPANION FLANGE.
RE MACHINE IF NECESSARY



ITEM NO.	PART NUMBER	MO/B	DESCRIPTION	QTY.
1	203977	B	FLANGE COMPANION(2-1-333)1-1/4 X 5/16 KY	1
2	203975	M	GEAR 44 TEETH 8.60 OD X 1.85 ID MACHINED	1

CONVERSION CHART	
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1/8" = .125	5/8" = .625
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3/8" = .375	7/8" = .875
7/16" = .4375	15/16" = .9375
1/2" = .50	1" = 1.00

BearCat Mfg.

RESISTANCE AND CONFIDENTIAL

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UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES: TOLERANCES: FRACTIONAL: 1/32 ANGULAR: MACH ± 3.0° BEND ± TWO PLACE DECIMAL ± .02 THREE PLACE DECIMAL ± .008		DRAWN: JDC	7-16-08
MATERIAL: N/A		CHECKED:	
FINISH: N/A		ENG APPR: KJH	7-16-08
		DO NOT SCALE DRAWING	
		MAKE OR BUY:	M

BEARCAT MFG.

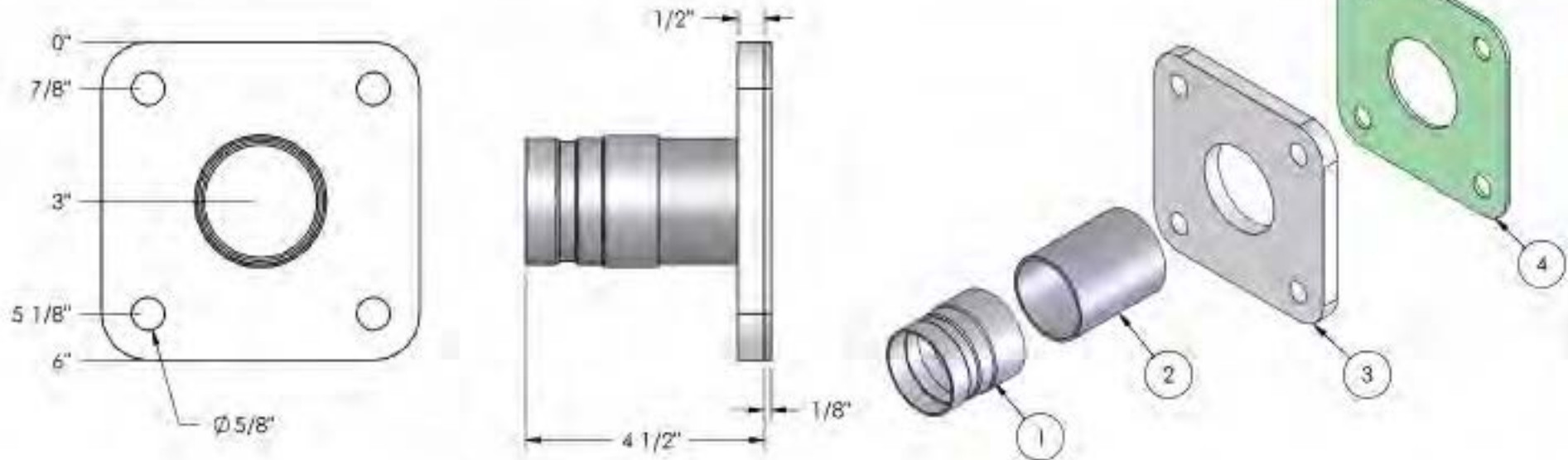
TITLE: GEAR ASM 44 TEETH CIR

Cold in place Recycler

SIZE A	DWG. NO. 203979	REV REL
------------------	---------------------------	-------------------

SCALE: NONE WEIGHT: 1.80 SHEET 1 OF 1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	REL	204533 CHANGED TO 1/2" MSP	2/27/10	JDC/RTC
	A	ADDED GROOVED NIPPLE WAS ON 205457	4/7/10	



ITEM NO.	PART NUMBER	MorB	DESCRIPTION	QTY.
1	FIT-29130	B	TUBE BELLED GROOVED NIPPLE 2 IN	1
2	204491	M	TUBE ROUND HREW MECH 2.375 X .090 x 3.00 IN LG	1
3	204533	M	FLANGE PUMP W 2 1/2" HOLE	1
4	204537	M	GASKET FOR PUMP FLANGE W 2 1/2" HOLE	1

CONVERSION CHART	
1/16" = .0625	9/16" = .5625
1/8" = .125	5/8" = .625
3/16" = .1875	11/16" = .6875
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5/16" = .3125	13/16" = .8125
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7/16" = .4375	15/16" = .9375
1/2" = .50	1" = 1.00

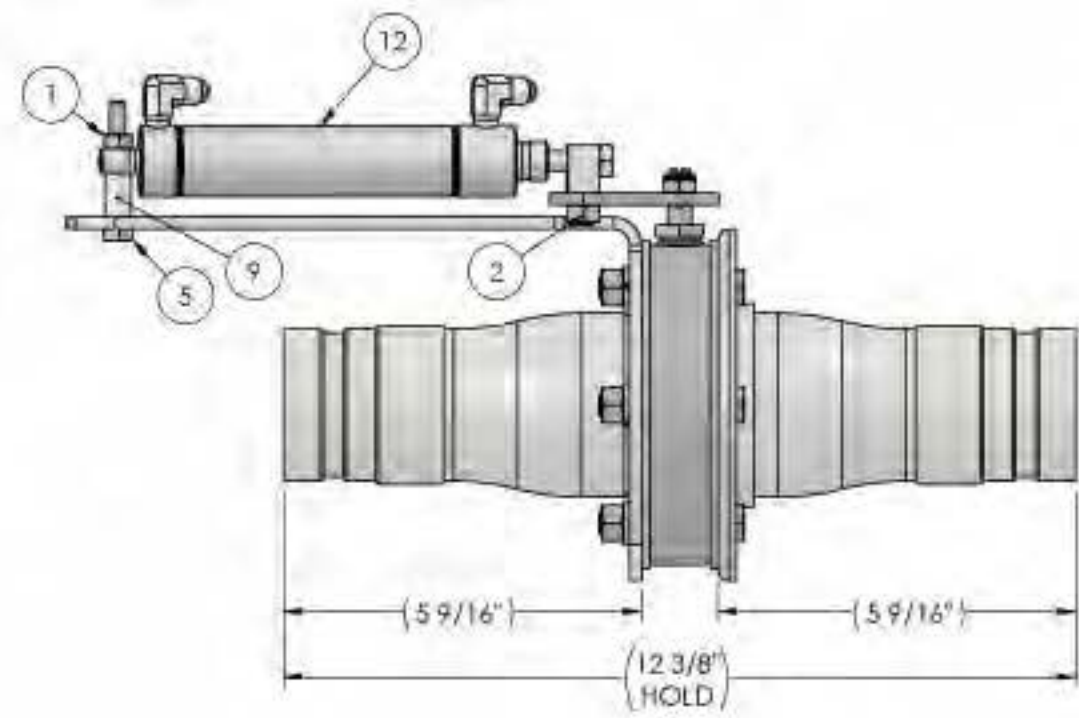
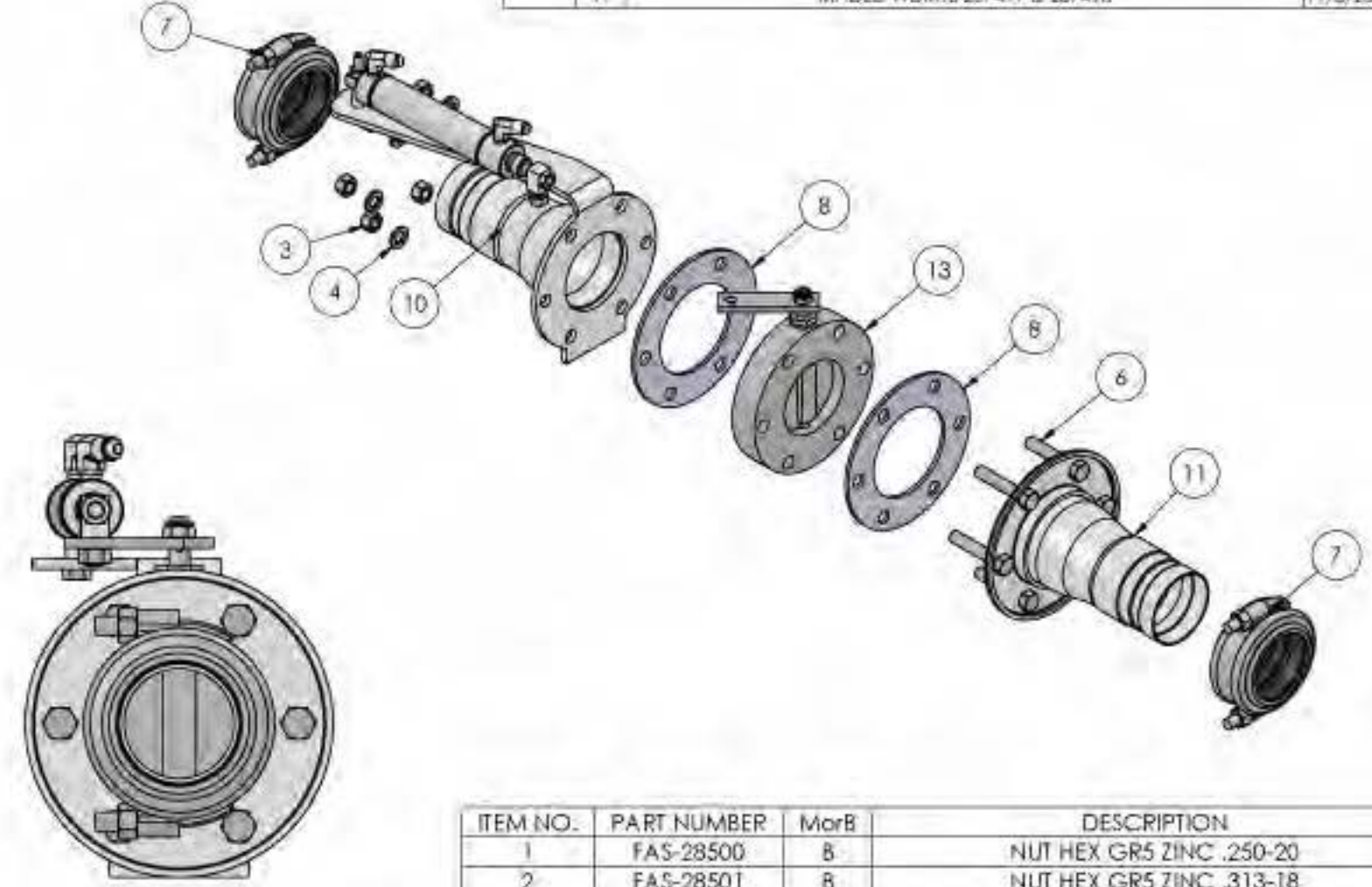
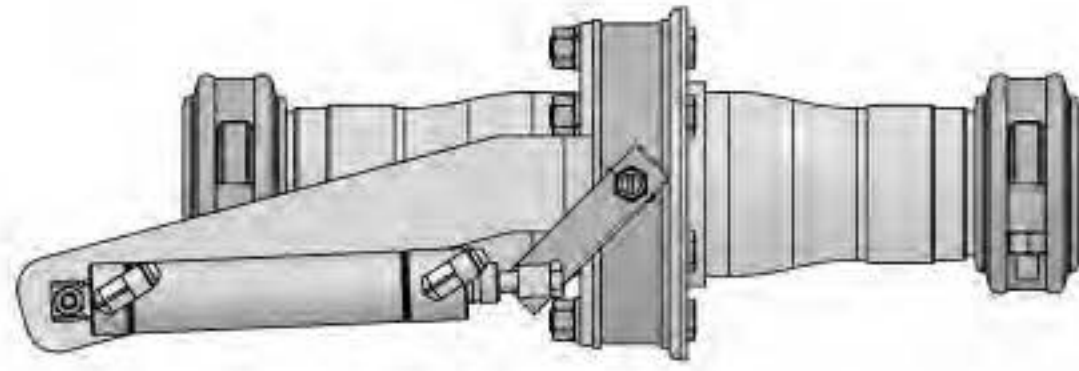


BEARCAT MFG.
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UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES - TOLERANCES: FRACTIONAL: 1/32 ANGULAR: MAX ± 1/8" BEND ± TWO PLACE DECIMAL ± .02 THREE PLACE DECIMAL ± .008		DRAWN: DMP	6-10-09
WHEN NOT OTHERWISE SPECIFIED: TOLERANCE FOR: H9/H8 MATERIAL		CHECKED:	
FINISH: N/A		ENG. APPL: KJH	6-10-09
		DO NOT SCALE DRAWING	
		MAKE OR BUY: M	

BEARCAT MFG.		
TITLE: FLANGE WDMT 450M METER/PUMP		
Cold in place Recycler		
SIZE: A	DWG. NO. 204449	REV: A
SCALE: NONE	WEIGHT: 5.12	SHEET 1 OF 1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	2	ADDED CYL-27487, 206606 & HARDWARE. REVISED DESCRIPTION	12/7/09	RC/DP
	3	ADDED 206641; REMOVED FIT-29156, FIT-29173, RNG-29055, 205606, CYL-27487, VLV-27275 & FASTENERS (MADE INTO SUB ASM 205641)	1/11/10	DP
	RE	ADDED OPEN CONFIG TO ASM	4/5/11	BM/DC
	A	MADED WDMTS 207497 & 207498	11/3/2011	RTC



ITEM NO.	PART NUMBER	MorB	DESCRIPTION	QTY
1	FAS-28500	B	NUT HEX GR5 ZINC .250-20	1
2	FAS-28501	B	NUT HEX GR5 ZINC .313-18	1
3	FAS-28502	B	NUT HEX GR5 ZINC .375-16	6
4	FAS-28643A	B	WASHER SPLIT LOCK GR8 ZINC .375 IN	6
5	FAS-28699	B	CAP SCR. HEX GR5 ZINC .250-20 X 2	1
6	FAS-28735	B	CAP SCR. HEX GR5 ZINC .375-16 X 2	6
7	FIT-29100	B	COUPLING GROOVED MARK II STEEL 2 IN	2
8	RNG-29055	B	GASKET 2.50 IN 6 HOLE	2
9	206590	M	PIPE SCH40 CW A J3 .125 IN X .75 LNG	1
10	207497	M	CYL MNT/FIT SPREAD CIRC VLV ASM	1
11	207498	M	FLANGE/REDUCER WDMT SPREAD CIRC VLV ASM	1
12	CYL-27487	M	CYLINDER ASM 2.50 IN BUTTERFLY VALVE	1
13	VLV-27275	M	VALVE 2.50 BUTTERFLY ASM STEEL HOUSING	1

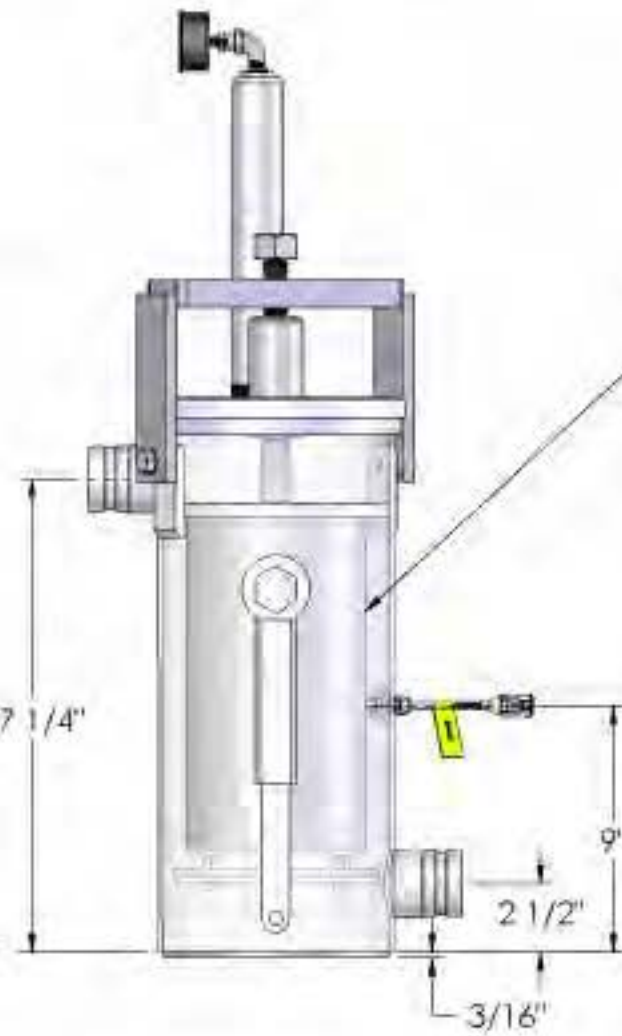
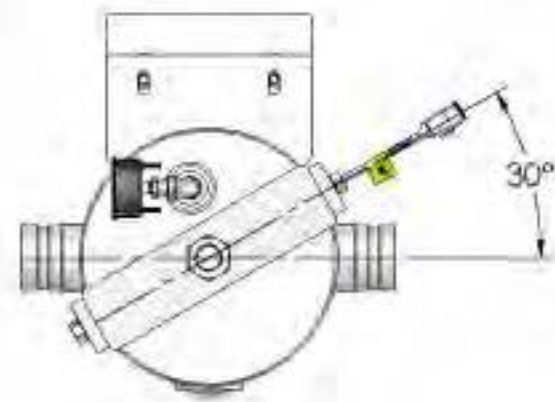
CONVERSION CHART	
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7/16" = .4375	15/16" = .9375
1/2" = .50	1" = 1.00



UNLESS OTHERWISE SPECIFIED:		
DIMENSIONS ARE IN INCHES	DRAWN	DMP 6-10-09
TOLERANCES:	CHECKED	
FRACTIONAL ± 1/32	ENG APPE	RTC 6-10-09
ANGULAR: MATCHES 1/2" BEND ± TWO PLACE DECIMAL ± .02	DO NOT SCALE DRAWING	
THREE PLACE DECIMAL ± .003	MAKE OR BUY:	M
METRIC GEOMETRY		
STANDARD PER: AWS		
MATERIAL:		
FINISH:		
11/A		

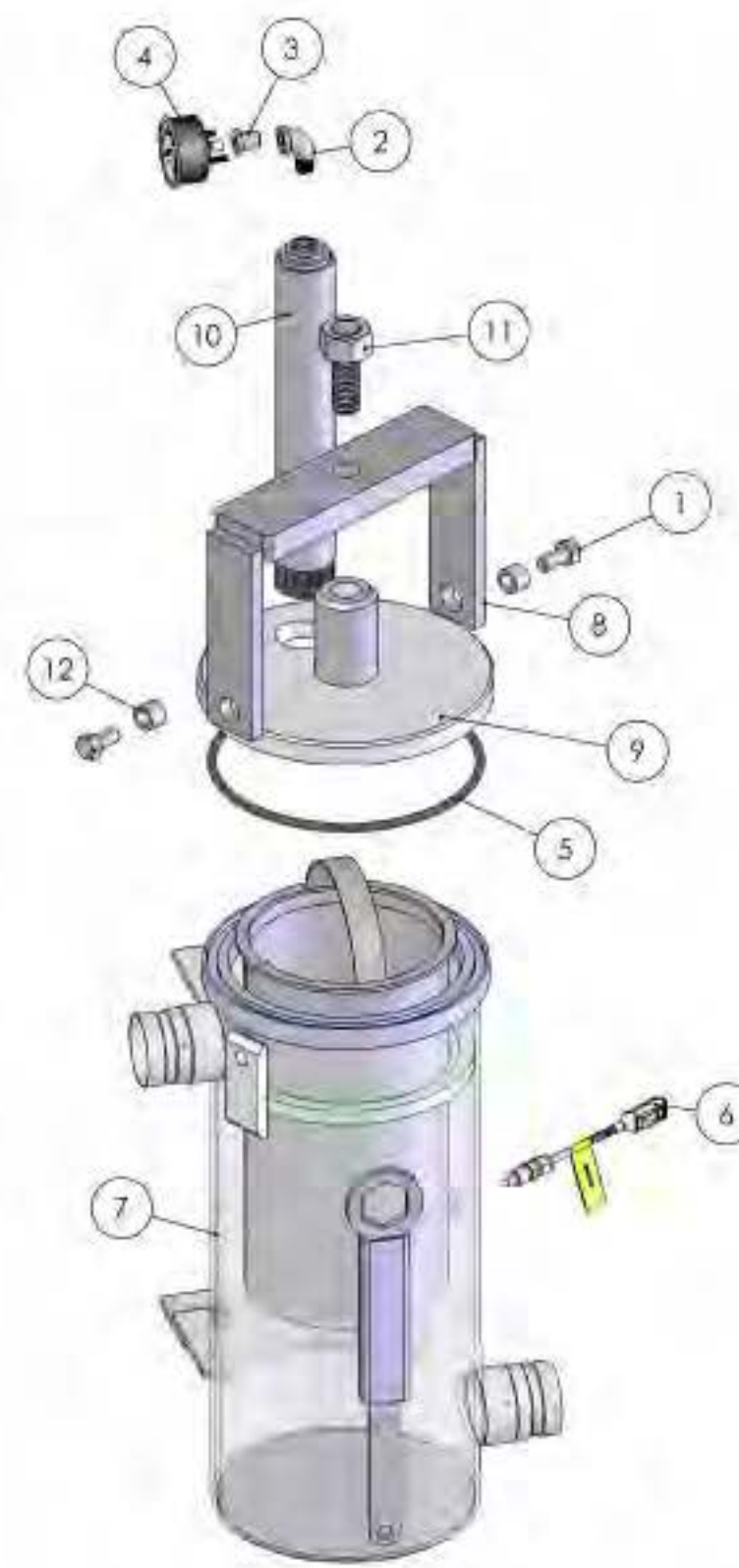
BEARCAT MFG.		
TITLE: SPREAD CIRC VLV ASM W/2' VIC.		
Cold in place Recycler		
SIZE	DWG. NO.	REV
B	204892	A
SCALE: NONE	WEIGHT: 13.27	SHEET 1 OF 1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROV
	A	REVISED 204888; ADDED 205203, 205206 & 205207; REMOVED 201010, 202899 & ASM-42779	9/24/09	RC/DP
	B	REVISED TO MATCH JCI PLUMBING	10/8/09	DP
	C	REMOVED 204983 & 205290 PLUMBING PIPING ASM'S; REMOVED PAGE 2; REMOVED 205206, FIT-29100 & 201021; ADDED RNG-27163 & 205469	11/30/09	RC/JC/DP
	D	ROTATED SENSOR FROM 10° TO 30° KNOW ALIGNED WITH HANDLE	4/19/10	JDC/RTC



NOTE SCREEN NOT INCLUDED, AVAILABLE SCREENS:
 FTR-421 15 FILTER 20 MESH FILTER PROD
 205090 SCREEN ASM PROD .25 IN DIA X .313 IN STGR
 205946 SCREEN ASM PROD .094 IN DIA X .156 IN STGR

ITEM NO.	PART NUMBER	MorB	DESCRIPTION	QTY.
1	FAS-28760	B	CAP SCR. HEX GR8 ZINC .50-13 X 1	2
2	FIT-28236	B	ELBOW STREET MAL. 90DEG. .250 IN	1
3	FIT-28340	B	BUSHING PIPE MAL HEX .250 X .125	1
4	MTR-22351	B	AIR PRESSURE GAUGE 0-60 LB*	1
5	RNG-27163	B	FILTER-STRAINER LID O-RING #5-445 SP200	1
6	204657	M	TEMP SENSOR ASM RTD TYPE 3"	1
7	204888	M	FILTER HOUSING ASM W/O HOT OIL	1
8	205203	M	LATCH ASM FLTR ASM W/SCRN O-RING	1
9	205207	M	LID 3/4" STRAINER ASM PROD HOUSING RTEC	1
10	205469	M	AIR GAGE RISER ASM FILTER ASM	1
11	FAS-42841	M	BOLT ASM FLTR ASM W/SCRN BC-170 PMP SP200	1
12	PIP-42844	M	BUSHING SPACER HOLD DOWN FILTER HSG SP200	2



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7/16" = .4375	15/16" = .9375
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UNLESS OTHERWISE SPECIFIED:			
DIMENSIONS ARE IN INCHES	DRAWN	NAME	DATE
TOLERANCES:	CHECKED	DMP	7-23-09
FRACTIONAL: ± 1/32	END APPE	EH	7-23-09
ANGULAR: MATCH ± 1.0° BEND ±	DO NOT SCALE DRAWING		
TWO PLACE DECIMAL ± .01	MAKE OR BUY:	M	
THREE PLACE DECIMAL ± .005			
FILTERED GEOMETRY			
DRAWING PER: ANS			
MATERIAL			
TRIP			

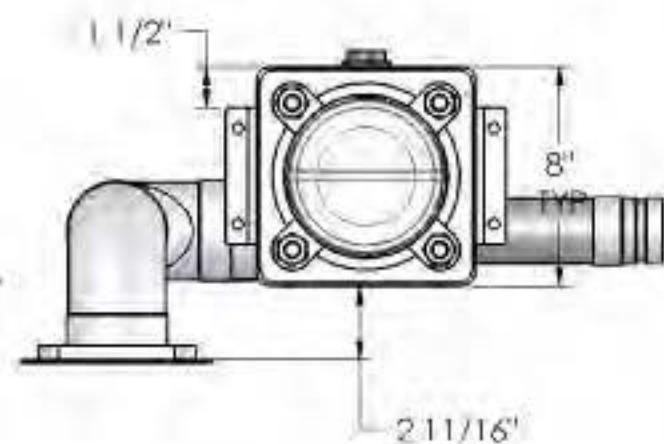
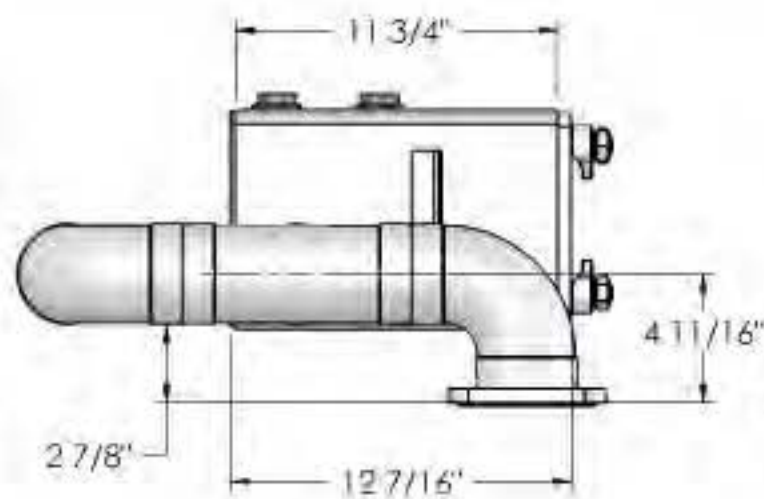
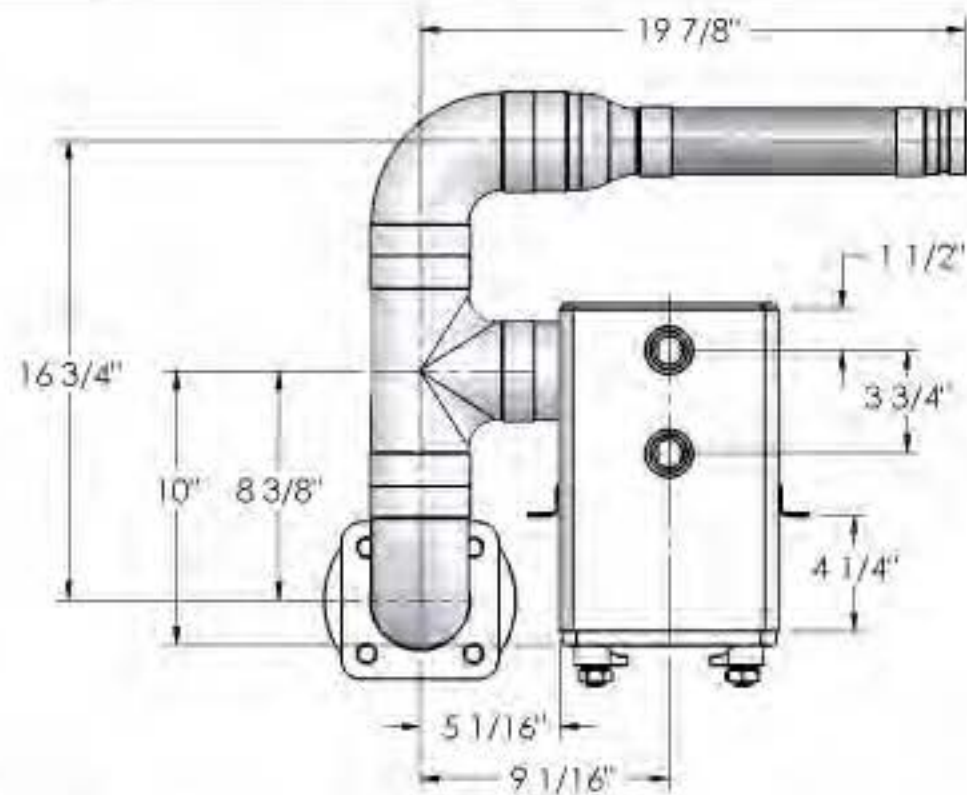
BEARCAT MFG.

TITLE: **FILTER ASM W/O HOT OIL CIR**

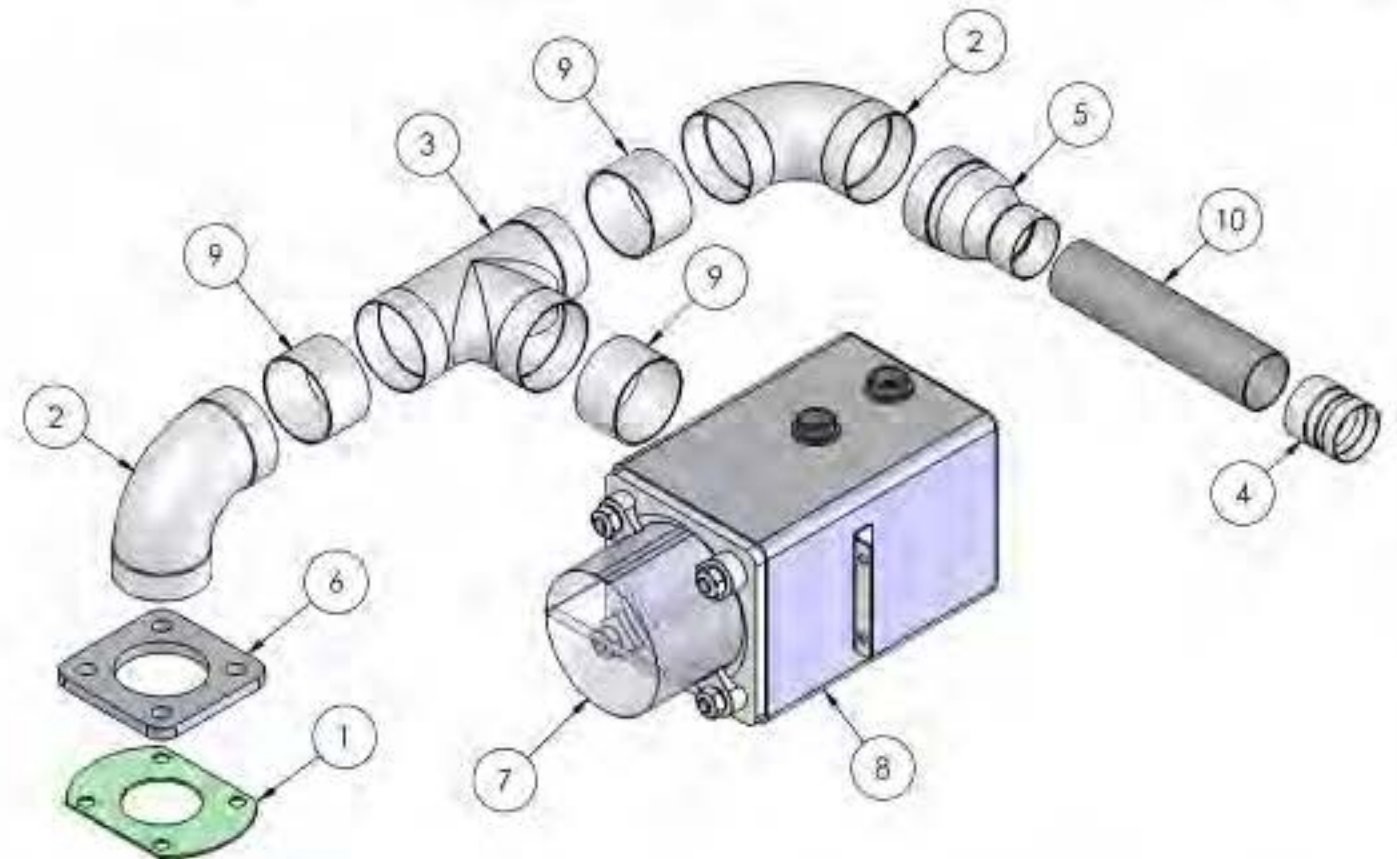
RT-500P

SIZE	DWG. NO.	REV
B	204982	D

SCALE: NONE WEIGHT: 79.43 SHEET 1 OF 1



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROV.
	A	REVISED 205541	1/12/10	RC/BM/DP
	B	ADDED FIT-29130, FIT-29146, 205549 WAS ON 205457	4/7/10	JDC/KLH
	C	CHANGED FIT-29146 TO FIT-29143	4/5/11	BM/JDC



ASSEMBLE USING
205457 MAIN JIG

ITEM NO.	PART NUMBER	MatB	DESCRIPTION	QTY.
1	205086	B	GASKET 300 PUMP (204338)	1
2	FIT-29033	B	TUBE BELLED ELBOW S.R. 90DEG 3 IN	2
3	FIT-29092	B	TUBE, BELLED TEE S.R. 3 IN	1
4	FIT-29130	B	TUBE BELLED GROOVED NIPPLE 2 IN	1
5	FIT-29143	B	TUBE BELLED CONCENTRIC REDUCER 3 IN X 2	1
6	202982	M	FLANGE INTAKE STRAINER ASM SX-7	1
7	205363	M	SUCTION STRAINER SCREEN ASM CIR/SX-7	1
8	205541	M	INTAKE STRAINER BOX ASM	1
9	205545	M	TUBE ROUND HREW MECH 3.50 X .090 X 2.00 IN LG	3
10	205549	M	TUBE ROUND HREW MECH 2.375 X .090 X 10 IN LG	1

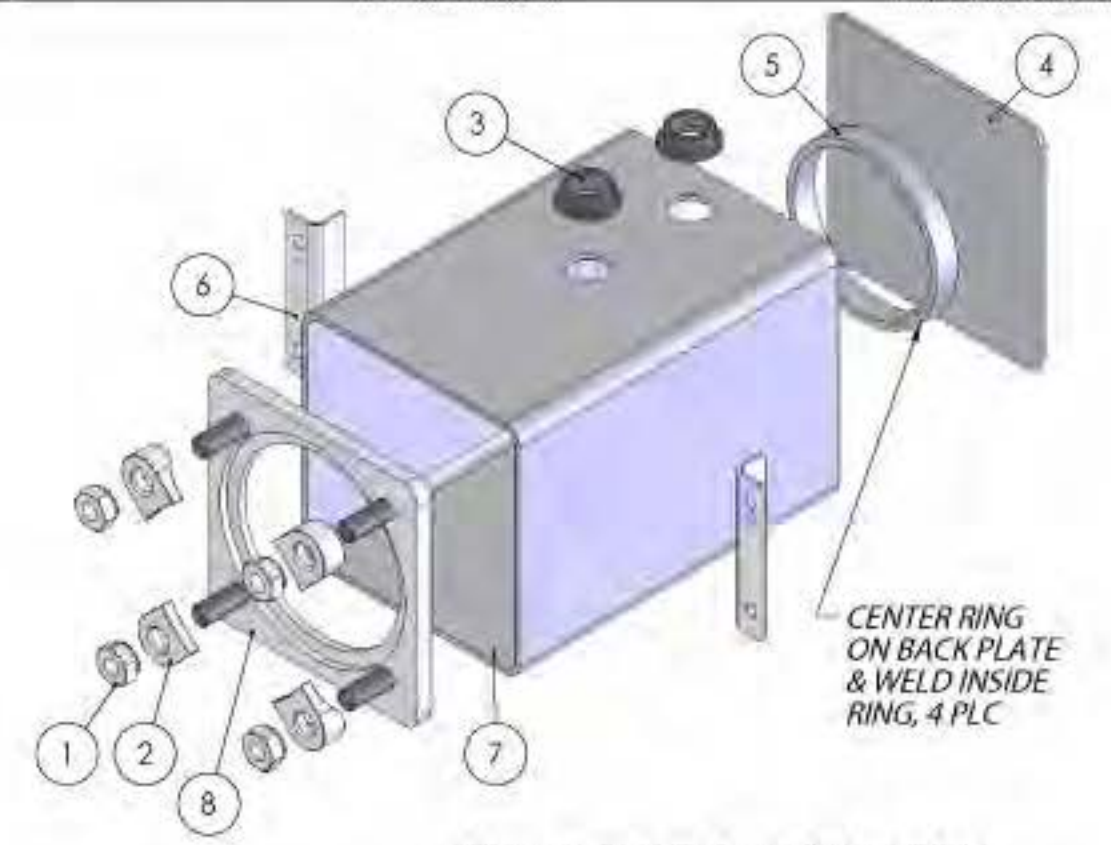
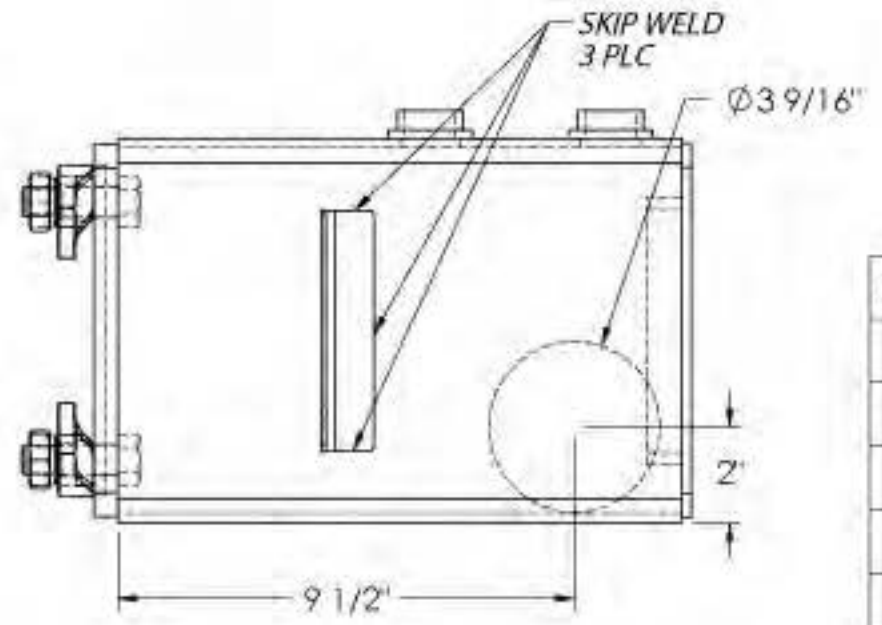
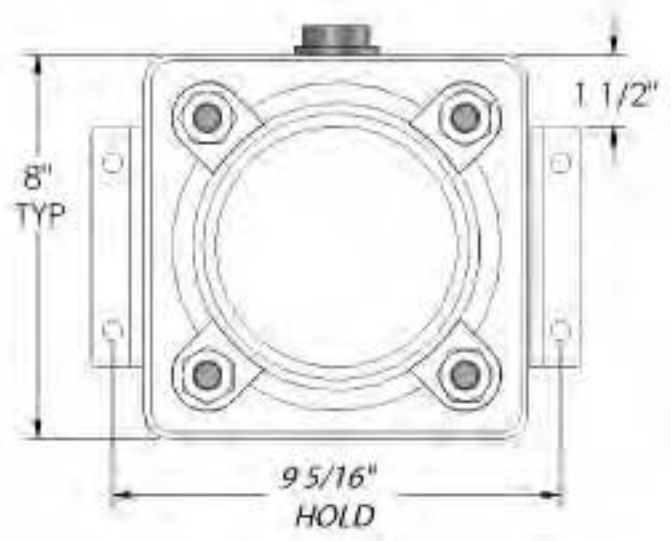
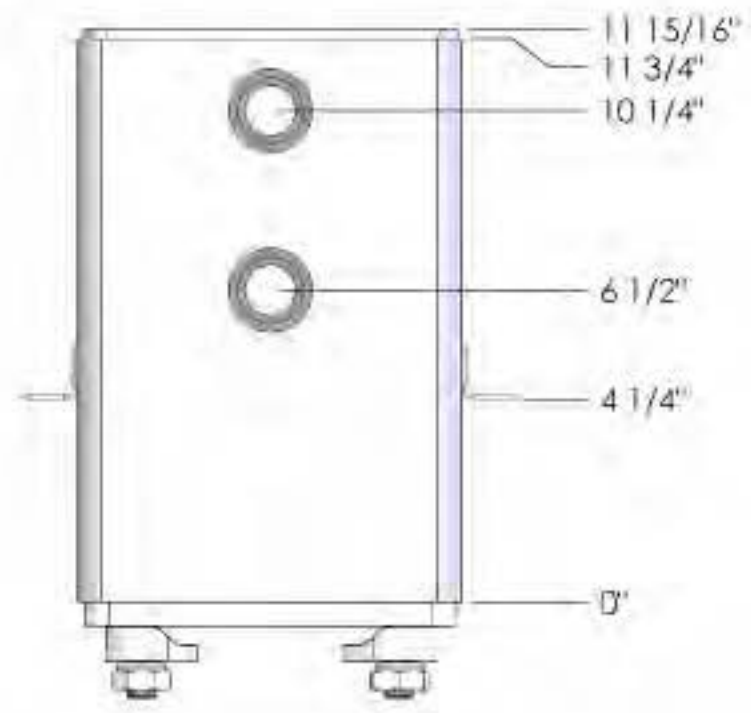
1/16" = .0625	9/16" = .5625
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7/16" = .4375	15/16" = .9375
1/2" = .50	1" = 1.00



UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		DMP	11-23-09
TOLEANCES:			
FRACTIONAL ± 1/32			
ANGULAR: MACH ± 1.0° BEND ±			
TWO PLACE DECIMAL ± .01			
THREE PLACE DECIMAL ± .005			
FITTED GEOMETRY:			
STRAIGHTENING PER: AMS			
MATERIAL:	MAKE OR BUY:	M	

BEARCAT MFG.		
TITLE: INTAKE STRAINER ASM RX-700 NO OIL		
Universal RX Milling skid		
SIZE	DWG. NO.	REV
B	205534	C
SCALE: NONE	WEIGHT: 44.90	SHEET 1 OF 1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROV
	A	REVISED 205540	1/12/10	RC/BM/DP



SEAL WELD TYP. LEAK CHECK

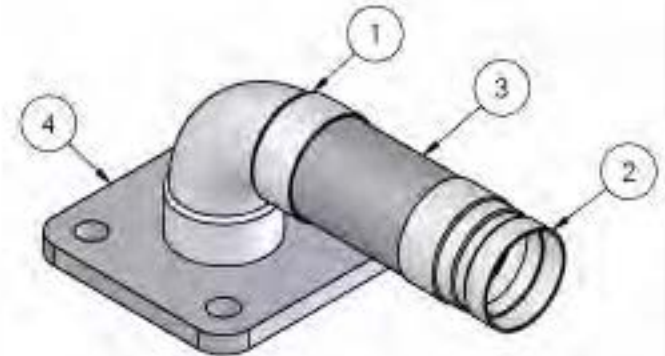
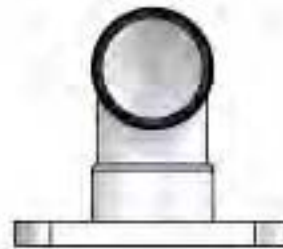
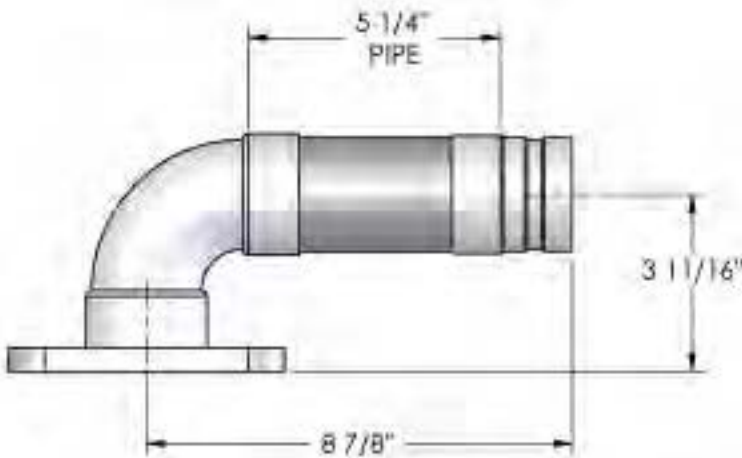
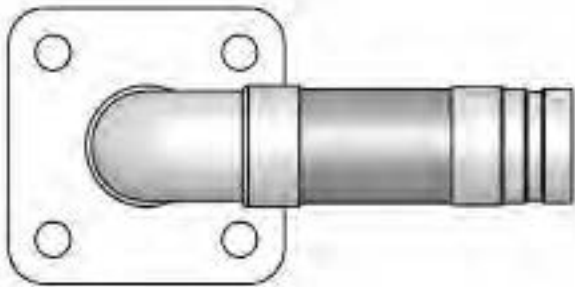
ITEM NO.	PART NUMBER	MatB	DESCRIPTION	QTY.
1	FAS-28548	B	NUT .625 IN	4
2	FAS-28549	B	CLIP .625 IN	4
3	FIT-28314	B	FLANGE PHX 3/4 IN	2
4	203768	M	PLT BK INTK STRNR ASM EMUL SYS CIR	1
5	203769	M	TUBE RETR INTK STRNR ASM EMUL SYS CIR	1
6	204493	M	BRKT MTG STRAINER ASM	2
7	205540	M	HSG INTAKE STRAINER RX-700	1
8	FIT-27532	M	FLANGE FRONT SUCTION SCREEN HOUSING	1

1/16" = .0625	9/16" = .5625
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3/16" = .1875	11/16" = .6875
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5/16" = .3125	13/16" = .8125
3/8" = .375	7/8" = .875
7/16" = .4375	15/16" = .9375
1/2" = .50	1" = 1.00



UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		DMP	11-23-09
TOLERANCES:			
FRACTIONAL ± 1/32			
ANGULAR: MACH ± 1.0° BEND ±			
TWO PLACE DECIMAL ± .02		RTC	11-23-09
THREE PLACE DECIMAL ± .003			
INTERPRET GEOMETRIC TOLERANCING BY: AMS			
MATERIAL:	MAKE OR BUY:	M	
FINISH:			
1/A			

BEARCAT MFG.		
TITLE: INTAKE STRAINER BOX ASM		
Universal RX Milling skid		
SIZE	DWG. NO.	REV
B	205541	A
SCALE: NONE	WEIGHT: 28.46	SHEET 1 OF 1



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	REMOVED CLAMP & GASKET	11/3/2011	RTC

ITEM NO.	PART NUMBER	MatB	DESCRIPTION	QTY.
1	FIT-29031	B	TUBE, BELLED ELBOW S.R. 90 DEG, 2 IN	1
2	FIT-29130	B	TUBE BELLED GROOVED NIPPLE 2 IN	1
3	204451	M	TUBE RD HREW MECH 2.375 X .090 X 5.250 IN LG	1
4	204457	M	FLANGE PUMP 2 1/4" HOLE	1

CONVERSION CHART	
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1/8" = .125	5/8" = .625
3/16" = .1875	11/16" = .6875
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5/16" = .3125	13/16" = .8125
3/8" = .375	7/8" = .875
7/16" = .4375	15/16" = .9375
1/2" = .50	1" = 1.00



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 WWW.BEARCATMFG.COM

UNLESS OTHERWISE SPECIFIED:

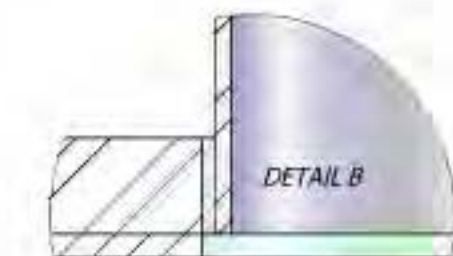
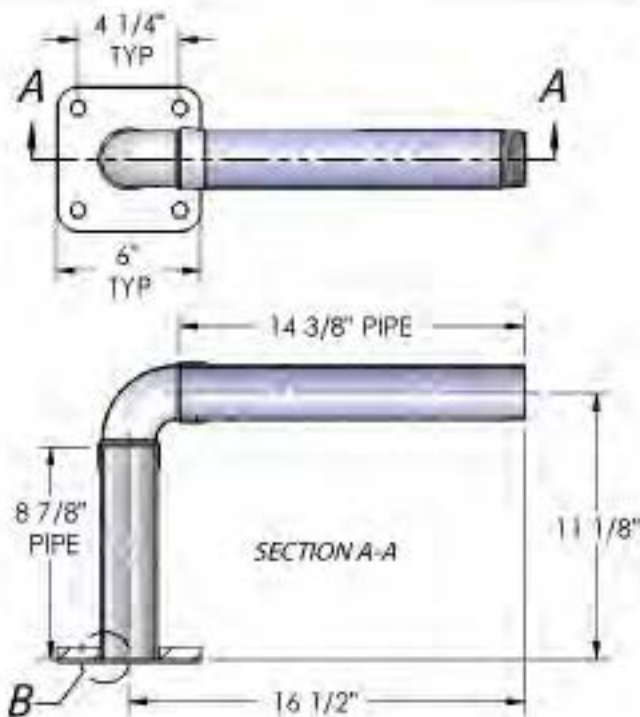
DIMENSIONS ARE IN INCHES
 TOLERANCES:
 FRACTIONAL ± 1/32
 ANGULAR: MACH ± 1/8° BEND ±
 TWO PLACE DECIMAL ± .02
 THREE PLACE DECIMAL ± .008

INTERFEE GEOMETRIC
 TOLERANCING PER: ASME
 Y14.5

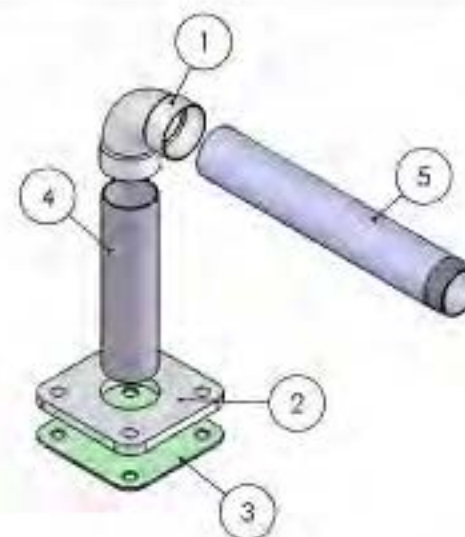
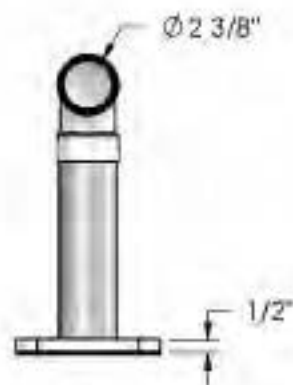
FINISH:
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	NAME	DATE
DRAWN	DMP	11-24-09
CHECKED		
ENG APPR.	RTC	11-24-09
DO NOT SCALE DRAWING		
MAKE OR BUY:	M	

BEARCAT MFG.			
TITLE: PLBG ASM PUMP OUTLET			
Universal RX Milling skid			
SIZE A	DWG. NO. 205546	REV A	
SCALE: NONE	WEIGHT: 5.75	SHEET 1 OF 1	



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	204533 CHANGED TO 1/2" N&P	2/27/10	JDC/RTC



SEAL WELD & LEAK TEST

ITEM NO.	PART NUMBER	Mo/B	DESCRIPTION	QTY
1	FIT-29031	B	TUBE, BELLED ELBOW S.R. 90 DEG. 2 IN	1
2	204533	M	FLANGE PUMP W 2 1/2" HOLE	1
3	204537	M	GASKET FOR PUMP FLANGE W 2 1/2" HOLE	1
4	205561	M	PIPE #7	1
5	205563	M	PIPE 14.375" PLUMBING ASM METER OUTLET	1

CONVERSION CHART	
1/16" = .0625	9/16" = .5625
1/8" = .125	5/8" = .625
3/16" = .1875	11/16" = .6875
1/4" = .250	3/4" = .750
5/16" = .3125	13/16" = .8125
3/8" = .375	7/8" = .875
7/16" = .4375	15/16" = .9375
1/2" = .50	1" = 1.00

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UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES: TOLERANCES: FRACTIONAL: 1/32 ANGULAR: MACH: 1/8" BEND ± TWO PLACE DECIMAL ± .02 THREE PLACE DECIMAL ± .008		DRAWN: DMP	11-24-09
INTERFEE GEOMETRIC TOLERANCING PER: ASME Y14.5-2009		CHECKED:	
MATERIAL:		ENG. APPL: RTC	11-24-09
FINISH:		DO NOT SCALE DRAWING	
N/A		MAKE OR BUY:	M

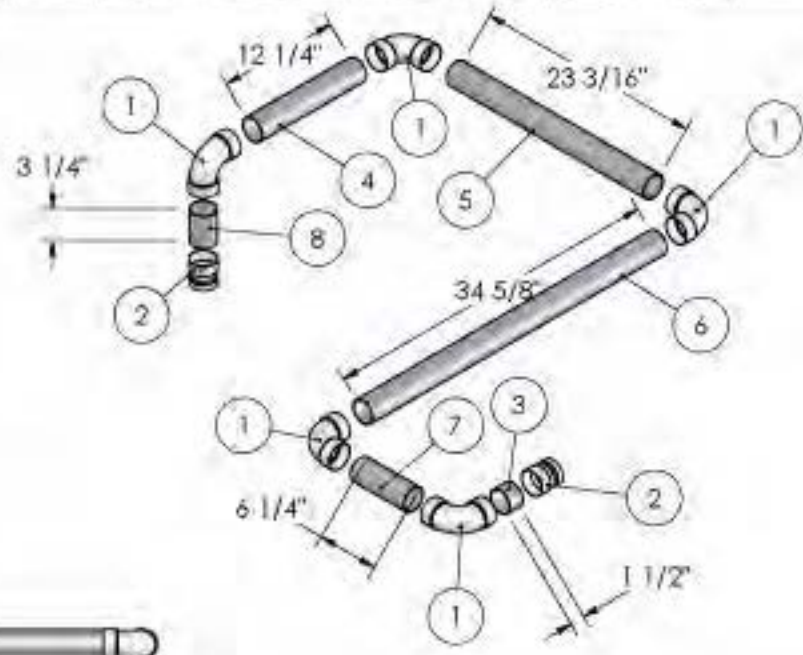
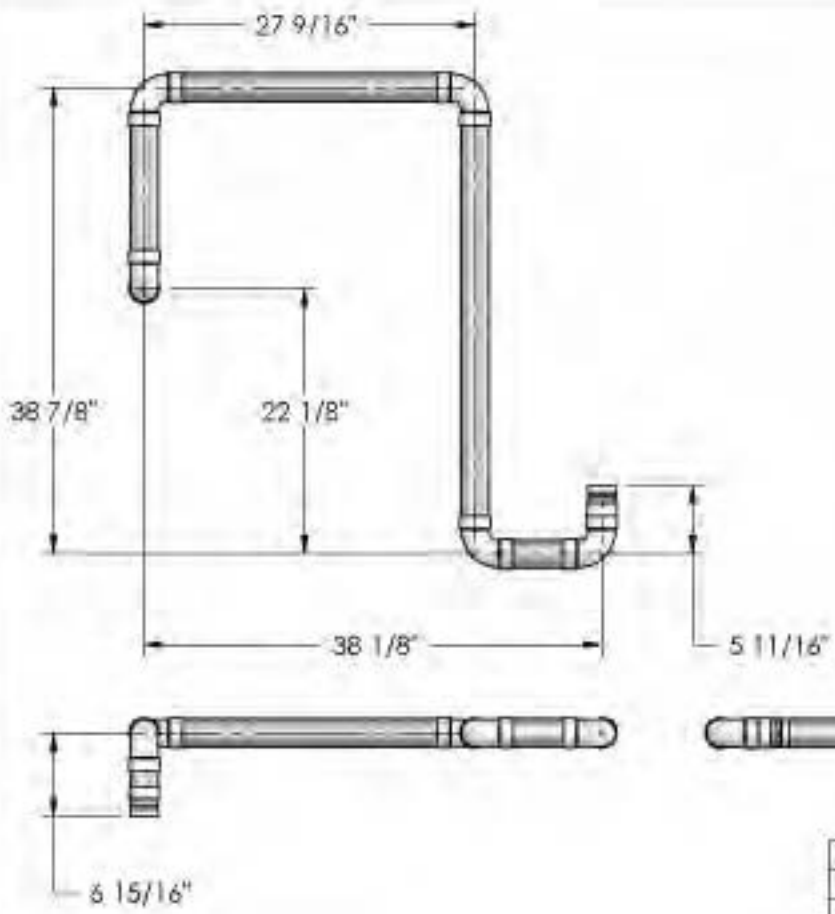
BEARCAT MFG.

TITLE: PLUMBING ASM METER OUTLET

Universal RX Milling skid

SIZE: A	DWG. NO.: 205547	REV: A
SCALE: NONE	WEIGHT: 10.86	SHEET 1 OF 1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	MOVED FIT-29100 TO FINAL 205457	11/3/2011	RTC



ASSEMBLE USING
205457 MAIN JIG

ITEM NO.	PART NUMBER	MorB	DESCRIPTION	QTY.
1	FIT-29031	B	TUBE, BELLED ELBOW S.R. 90 DEG. 2 IN	5
2	FIT-29130	B	TUBE BELLED GROOVED NIPPLE 2 IN	2
3	204455	M	TUBE RD HREW MECH 2.375 X .090 X 1.5 IN LG	1
4	205551	M	PIPE #2	1
5	205552	M	PIPE #3	1
6	205556	M	PIPE #4	1
7	205557	M	PIPE #5	1
8	205558	M	PIPE #6	1

CONVERSION CHART	
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3/16" = .1875	11/16" = .6875
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1/2" = .50	1" = 1.00

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 WEATHER RESISTANT AND DURABLE
 PRODUCTS FOR THE CONSTRUCTION AND INDUSTRIAL
 MARKET. WE ARE COMMITTED TO EXCELLENCE IN
 SERVICE AND CUSTOMER SATISFACTION.

UNLESS OTHERWISE SPECIFIED:	NAME	DATE
DIMENSIONS ARE IN INCHES	DRAWN	DMP 12-1-09
TOLERANCES:	CHECKED	
FRACTIONAL: 1/32	ENG APPL	RTC 12-1-09
ANGULAR: MACH ± 1/2° BEND ±	DO NOT SCALE DRAWING	
TWO PLACE DECIMAL ± .02	MAKE OR BUY: M	
THREE PLACE DECIMAL ± .003		
RHETREEF GET MORK		
TOLERANCING RFE: ANSI		
MATERIAL:		
FINISH:		
H/A:		

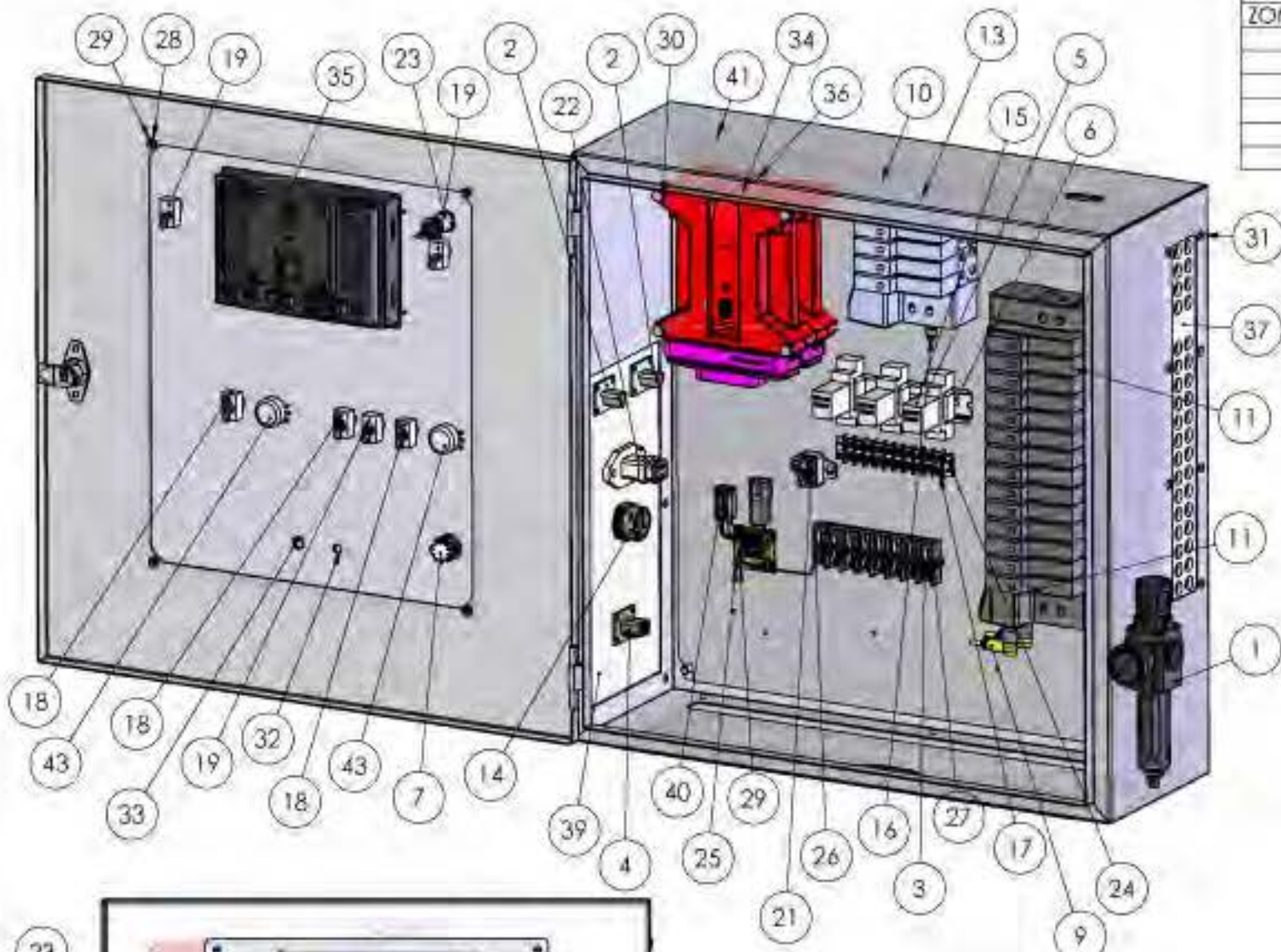
BEARCAT MFG.

TITLE:
FLBG ASM PUMP OUTLET TO CANISTER INLET

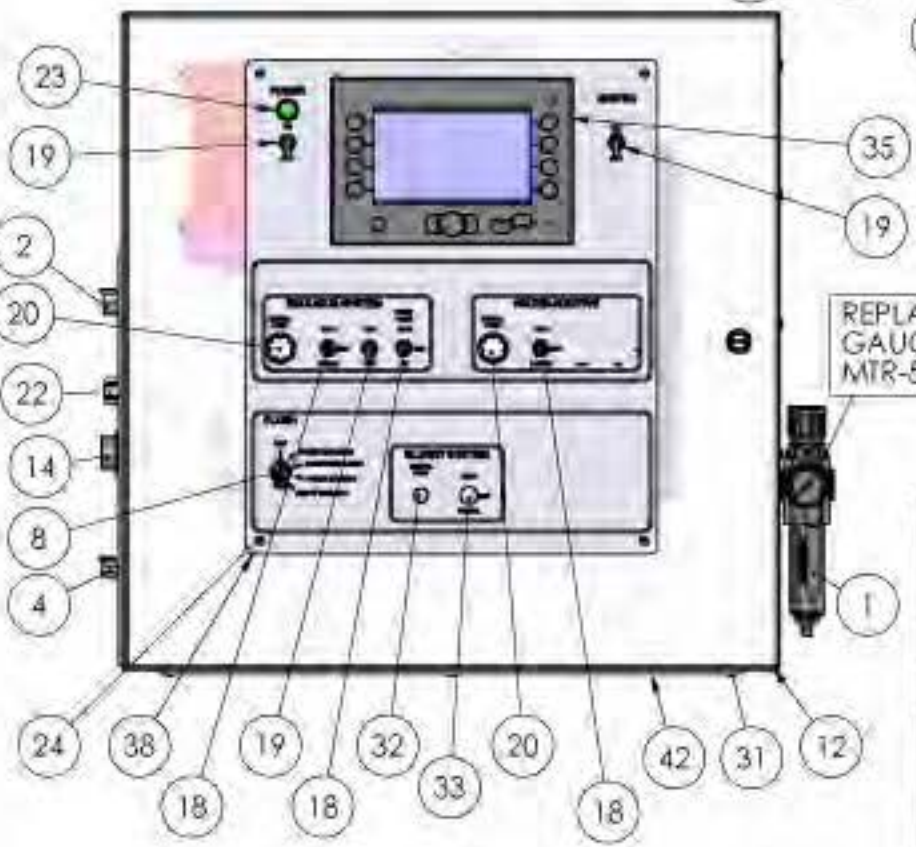
Universal RX Milling skid

SIZE A	DWG. NO. 205572	REV A
SCALE: NONE		WEIGHT: 18.81
SHEET 1 OF 1		

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROV
	A	ADDED ELC-26262	1/13/10	RC/DP
	B	ADDED 200387	2/18/10	DP
	C	ADJUSTED HOLES IN INSIDE MOUNTING PLATE, BOTTOM SLOT & LH SIDE FOR HOESING	2/27/10	JDC/RTC
	D	REPLACED 203804 W/ 205934 & 204903 W/ 205938 NEEDED UNIQUE PART	4/14/10	JDC/RTC
	E	FIXED MATES 205620 MODEL A ASSEMBLY CUT-OUTS REDRAWN IN PARTS	4/26/11	BM/JDC
	F	REMOVED OPT-94006 FOAMING OPTION	11/7/11	BM



ITEM NO.	PART NUMBER	MoB	DESCRIPTION	QTY
1	200387	B	FILTER/REG NORGREN(B72G2AKAE3RMG) SP200	1
2	200656	B	DEUTSCH 3 PIN RECPT 4 HOLE MT (DT04-3P)	2
3	200710	B	TERMINAL BLOCK SECT 6-CONN TAB(MTB1-TB)	8
4	201949	B	DEUTSCH 4PIN RECPT W/FG(DT04-4P-L012)	1
5	202814	B	SOCKET RELAY 8 PIN	3
6	202815	B	RAIL DIN 3" LONG	1
7	202823	B	SWITCH ROTARY SP 10 POS. 1 AMP TT08	1
8	202834	B	KNOB POINTER	1
9	204351	B	CABLE 6FT W/90CONN 5 WIRE M12 SNSR (GRBX) CHIP*	2
10	205553	B	VS-18 VALVE ASM 24VDC AIR CAN OPEN 14 STA	1
11	205554	B	VS-18 VALVE ASM 24VDC AIR 14 STA CAN OPEN	1
12	205620	B	BOX MOD ENC OIL TIGHT 24 X 24 X 8	1
13	205622	B	SCREW MACHINE ROUND HEAD #8-32 X 1.5	8
14	205630	B	DEUTSCH RECPT SHELL 18 SOC 14 SIZE 16	1
15	205691	B	RELAY 8 PIN DPDT 15A 24V	3
16	4MJ-4MP	B	C5205X4X4	1
17	ELC-24188	B	CINCH CONNECTOR 10 LUG (BARRIER STRIP)	1
18	ELC-24272A	B	SWITCH SEALED ON-OFF-ON SPDT	3
19	ELC-24275	B	SWITCH ON/OFF ONE POLE TOGGLE	3
20	ELC-24284	B	KNOB COMPUTER RATE CONTROLLED	2
21	ELC-24289	B	CIRCUIT BREAKER 12 V 15 AMP MAN RESET	1
22	ELC-26262	B	DEUTSCH 8-PIN RECPT(DT04-08PA-LE03)	1
23	ELC-60306	B	LIGHT GREEN CHIPPER NEUTRAL INDICATOR	1
24	FAS-25813	B	SCREW MACHINE ROUND HEAD #8-32 X .50	6
25	FAS-25814	B	SCREW MACHINE ROUND HEAD #8-32 X .750	4
26	FAS-25833	B	SCREW MACHINE ROUND HEAD #10-32 X .50	5
27	FAS-25835	B	SCREW MACHINE ROUND HEAD #10-32 X 1	2
28	FAS-28479	B	WASHER SPLIT LOCK ZINC #8	4
29	FAS-28552	B	NUT HEX GR5 ZINC #8-32	12
30	FAS-28709	B	CAP SCR HEX GR5 ZINC 250-20 X 4	4
31	FAS-29002	B	RIVET POP .188 IN X .750 IN GRIP	14
32	FIT-24182	B	PLUG BUTTON CHROME .375 IN	1
33	FIT-24219	B	PLUG BUTTON CHROME .50 IN	1
34	203789	M	PLUS1 NODE 3 CIR	1
35	203802	M	PLUS 1 DISPLAY DP610 CIR	1
36	203803	M	PLUS1 NODE 4 CIR	1
37	205619	M	PLATE HOSE GUIDE VLV BOX ASM RX MILLING	1
38	205623	M	PLATE FACE DISPLAY RX MILLING MACH	1
39	205629	M	PNL CONN CTRL BOX ASM UNIV RX MILLG MACH SKID ASM	2
40	205715	M	CIRCUIT BOARD ASM CTRL BOX ASM	1
41	205934	M	PNL BACK CTRL BOX UNIV RX MILLG SKID ASM	1
42	205938	M	PATCH BOT CTRL BOX ASM UNIV RX MILLG MACH SKID ASM	1
43	ELC-61122	M	STALL POT WIRE HARN W/3 PIN MALE PLUG	2



REPLACEMENT GAUGE 0-6000 PSI MTR-50665

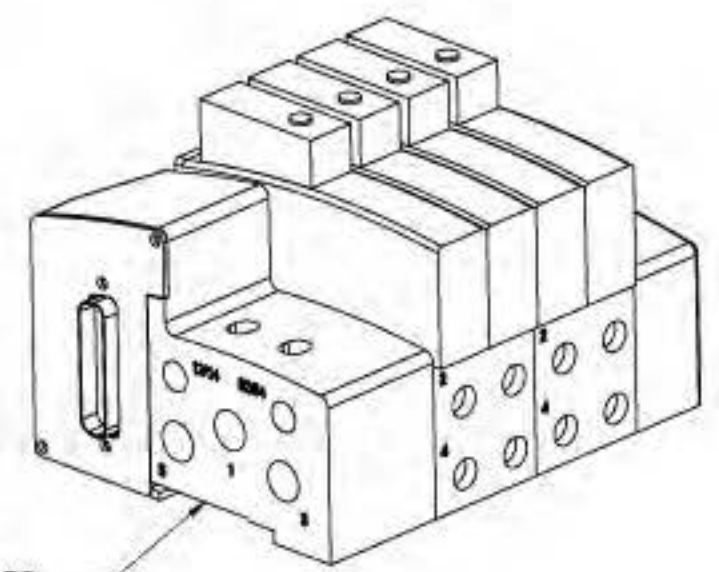
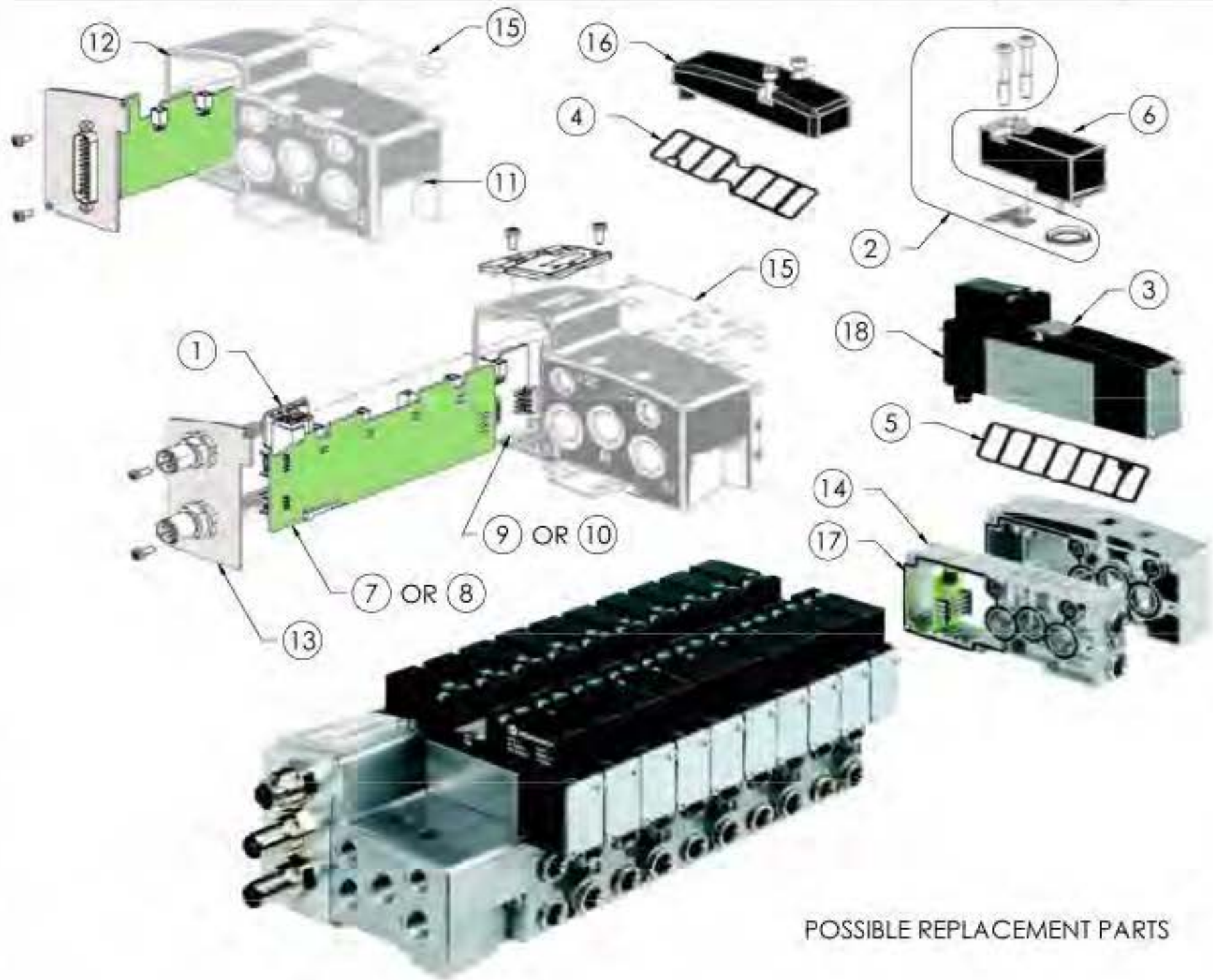
1/16" = .0625	9/16" = .5625
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UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES	TOLERANCES:	DRAWN	DMP 12-9-09
FRACTIONS MAX 1/32	ANGULAR: MATCH 1/8" BEND & TWO PLACE DECIMAL ± .01	CHECKED	
THREE PLACE DECIMAL ± .005		ENG APPE	RTC 12-9-09
		DO NOT SCALE DRAWING	
		MAKE OR BUY:	M

BEARCAT MFG.		
TITLE:	CTRL BOX ASM UNIV RX MILLG MACH SKID ASM	
Universal RX Milling skid		
SIZE	DWG. NO.	REV
B	205597	F
SCALE: NONE	WEIGHT: 68.39	SHEET 1 OF 1



POSSIBLE REPLACEMENT PARTS

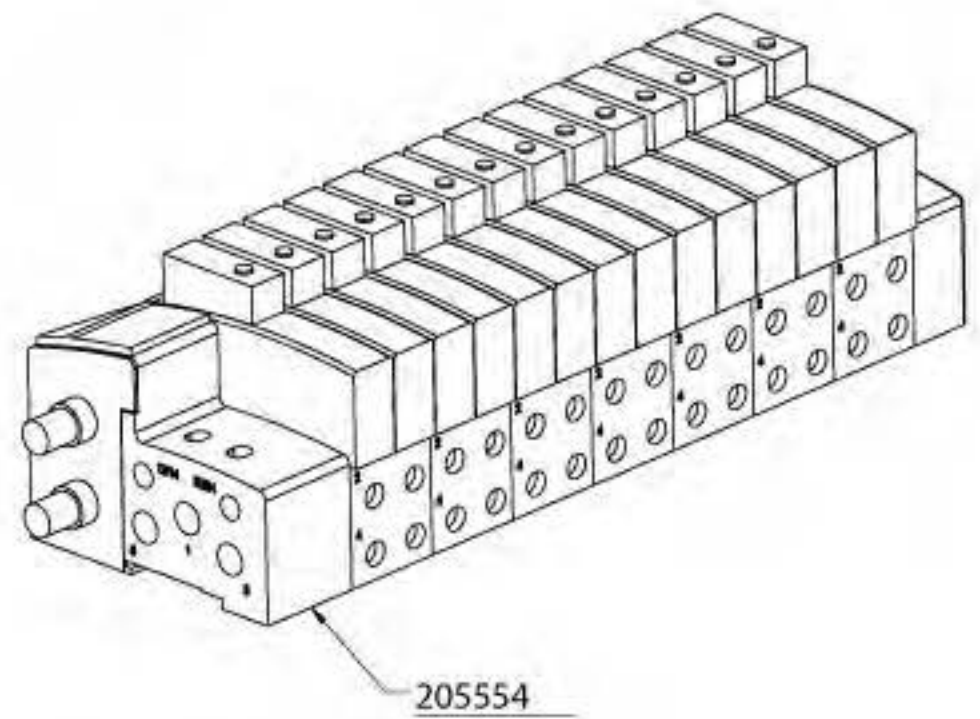
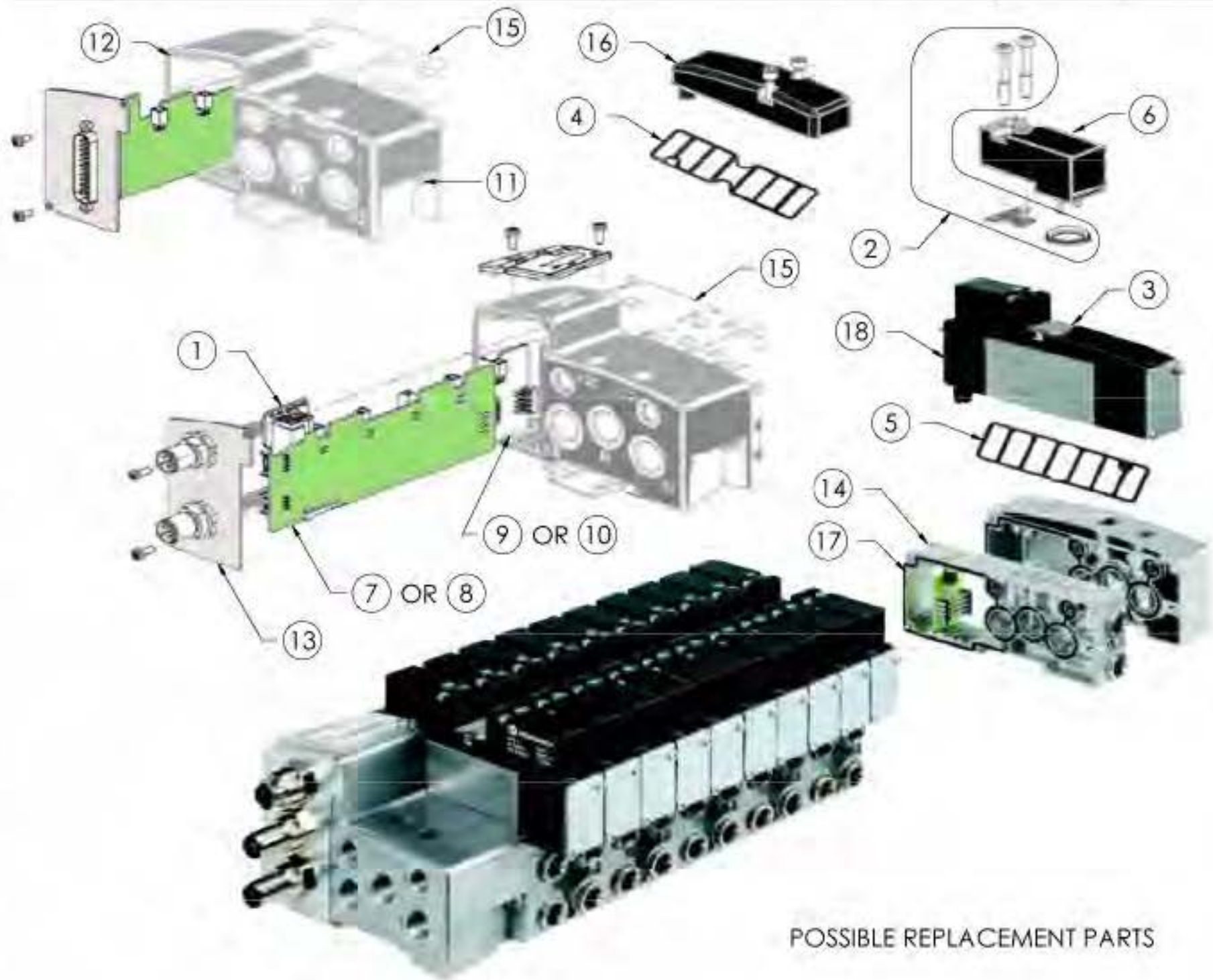
ITEM NO.	PART NUMBER	DESCRIPTION
1	204546	VS18 CANOPEN PCB BOARD MODIFIED NORGREN VALVE BANKS 12V & 24V
2	205993	VS18 GASKET NORGREN VALVE RED PILOT VALVE COIL
3	207030	SCREW MOUNTING NORGREN VS18/VS26 VALVE
4	207500	VS18 GASKET FOR BLANK COVER
5	207501	VS18 GASKET FOR VALVE
6	ELC-35008	VS18 NORGREN 24 V NON LOCKING SOLENOID(COIL) FOR VALVE
7	ELC-35037	VS18 MANIFOLD FIELDBUS PCB 10 STATION
8	ELC-35038	VS18 MANIFOLD FIELDBUS PCB 12 STATION
9	ELC-35039	VS18 MANIFOLD EXPANSION OUTPUT BOARD 1 STATION
10	ELC-35040	VS18 MANIFOLD EXPANSION OUTPUT BOARD 2-STATION
11	FAS-35041	VS18 MANIFOLD HEX SOC HD SCREWS M3 X 10 MM FOR SUB-BASES
12	FAS-35043	VS18 MANIFOLD CONNECTOR KIT GASKET ON END PLATE
13	MSC-35030	VS18 END PLATE KIT FOR FIELDBUS W/SCREWS & GASKET
14	MSC-35031	VS18 SNGL STAT MODLR SUB-BASE W/SCREWS & GASKET
15	MSC-35032	VS18 DBL STAT MODLR SUB-BASE W/SCREWS & GASKET
16	MSM-35029	VS18 NORGREN BLANK COVER FOR VALVE MANIFOLD ASSY VLV-35007
17	RNG-35042	VS18 MANIFOLD GASKETS USED BETWEEN VLV SLICES
18	VLV-35006	VS18 NORGREN VLV 4-WAY ASM W/24 V COIL (5/2 VLV SOL SPRING)

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UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES	TOLERANCES:	DMP	12-9-09
FRACTIONAL ± 1/32	ANGULAR: MACH ± 1.0° BEND ±	CHECKED	
TWO PLACE DECIMAL ± .02	THREE PLACE DECIMAL ± .003	ENG APPE.	
INTEREST GEOMETRIC TOLERANCING (ITP): ANY MATERIAL		DO NOT SCALE DRAWING	
		MAKE OR BUY:	B

BEARCAT MFG.			
TITLE: VS-18 VALVE ASM 24VDC AIR CAN OPEN 14 STA			
Manifolds Pn			
SIZE	DWG. NO.	REV	
B	205553	A	
SCALE: NONE	WEIGHT: 2.22	SHEET 1 OF 1	



POSSIBLE REPLACEMENT PARTS

ITEM NO.	PART NUMBER	DESCRIPTION
1	204546	VS18 CANOPEN PC BOARD MODIFIED NORGREN VALVE BANKS 12V & 24V
2	205993	VS18 GASKET NORGREN VALVE RED PILOT VALVE COIL
3	207030	SCREW MOUNTING NORGREN VS18/VS26 VALVE
4	207500	VS18 GASKET FOR BLANK COVER
5	207501	VS18 GASKET FOR VALVE
6	ELC-35008	VS18 NORGREN 24 V NON LOCKING SOLENOID(COIL) FOR VALVE
7	ELC-35037	VS18 MANIFOLD FIELDBUS PCB 10 STATION
8	ELC-35038	VS18 MANIFOLD FIELDBUS PCB 12 STATION
9	ELC-35039	VS18 MANIFOLD EXPANSION OUTPUT BOARD 1 STATION
10	ELC-35040	VS18 MANIFOLD EXPANSION OUTPUT BOARD 2-STATION
11	FA5-35041	VS18 MANIFOLD HEX SOC HD SCREWS M3 X 10 MM FOR SUB-BASES
12	FA5-35043	VS18 MANIFOLD CONNECTOR KIT GASKET ON END PLATE
13	MSC-35030	VS18 END PLATE KIT FOR FIELDBUS W/SCREWS & GASKET
14	MSC-35031	VS18 SNGL STAT MODLR SUB-BASE W/SCREWS & GASKET
15	MSC-35032	VS18 DBL STAT MODLR SUB-BASE W/SCREWS & GASKET
16	MSM-35029	VS18 NORGREN BLANK COVER FOR VALVE MANIFOLD ASSY VLV-35007
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UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES	TOLERANCES:	DRAWN	JDC 12-01-09
FRACTIONAL ± 1/32	ANGULAR: MACH ± 1.0° BEND ± TWO PLACE DECIMAL ± .02	CHECKED	
THREE PLACE DECIMAL ± .003		ENG APPE	
INTERPRET GEOMETRIC TOLERANCING PER: AMS		DO NOT SCALE DRAWING	
MATERIAL		MAKE OR BUY:	B
FINISH			

BEARCAT MFG.

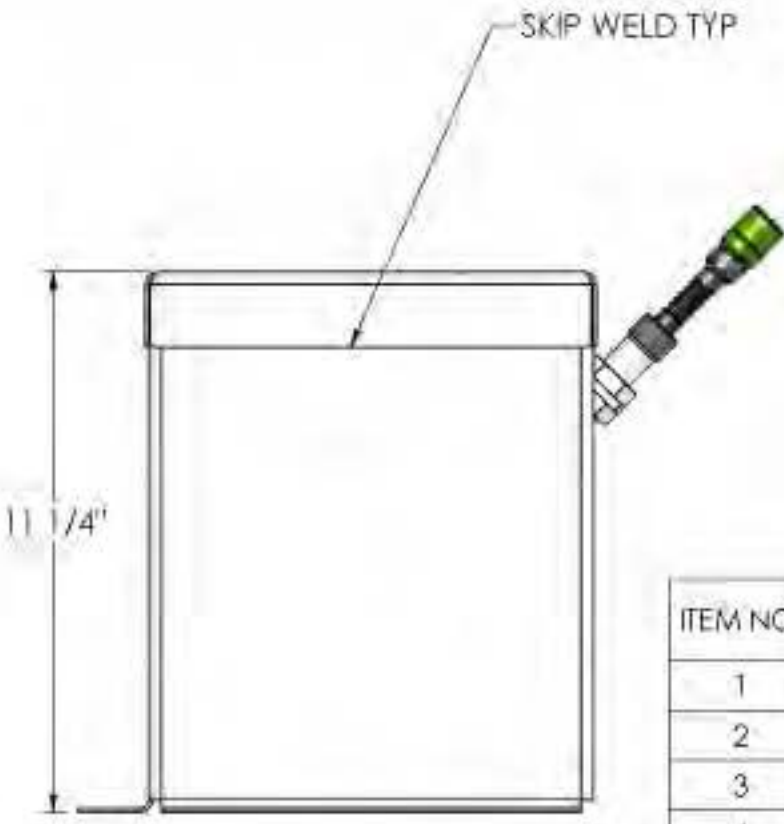
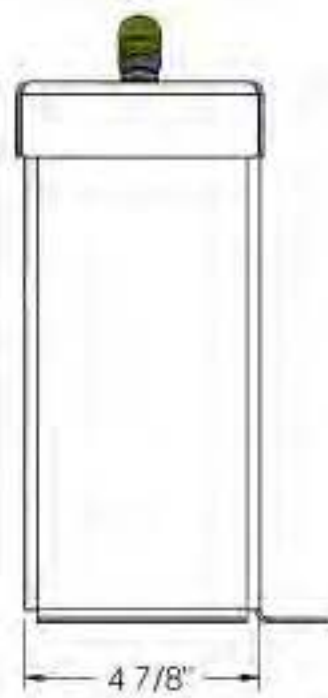
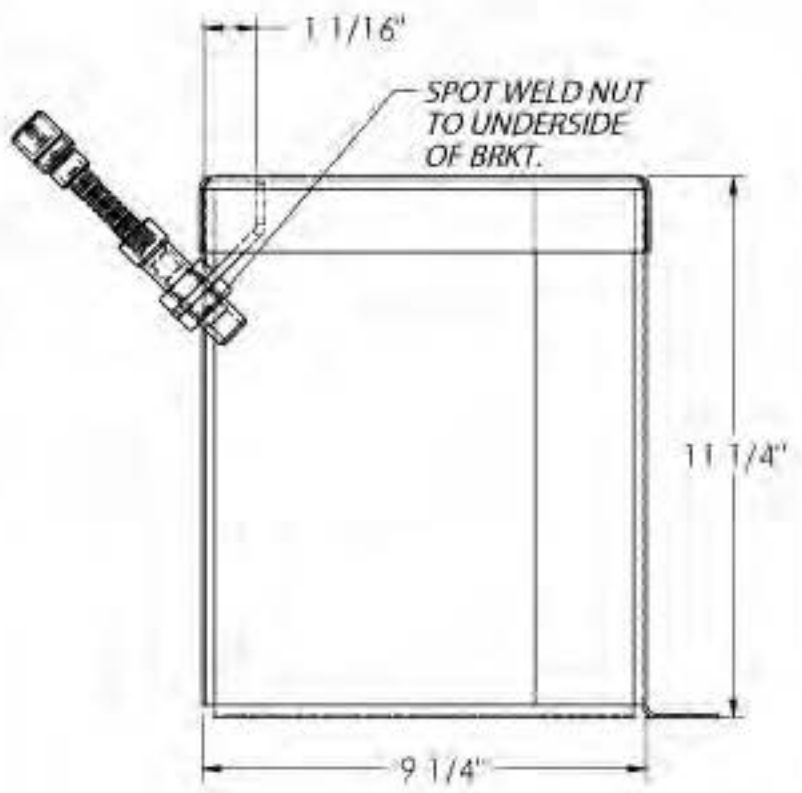
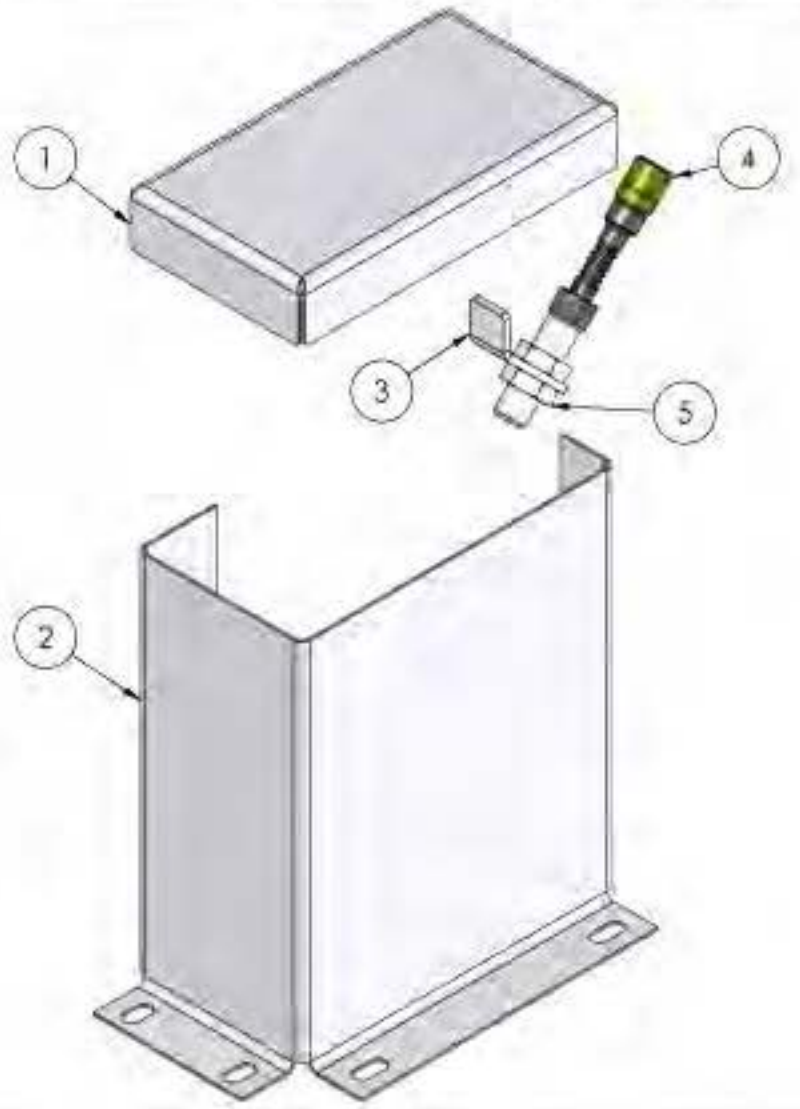
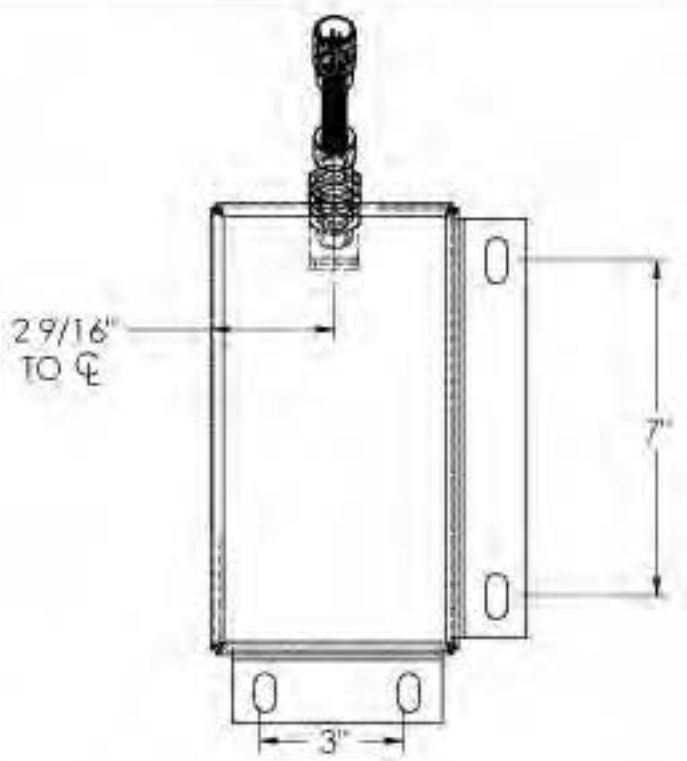
TITLE:
VS-18 VALVE ASM 24VDC AIR 14 STA CAN OPEN

Manifolds Pn

SIZE	DWG. NO.	REV
B	205554	REL

SCALE: NONE WEIGHT: SHEET 1 OF 1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROV
	A	ADDED 1-1/2 FLANGE TO BASE & MADE LID 4 SIDED TO STIFFEN FOR SENSOR	4/27/10	JDC/RTC



ITEM NO.	PART NUMBER	MorB	DESCRIPTION	QTY
1	205965	M	LID PUMP GRD RX-MILLING MACH.	1
2	205966	M	BASE PUMP GRD RX-MILLING MACH.	1
3	205967	M	MT SENSOR PUMP GRD RX-MILLING MACH.	1
4	ELC-26148	M	GEAR TOOTH SENSOR ASSEMBLY*	1
5	FIT-100039	M	NUT GEAR SENSOR HOUSING	1

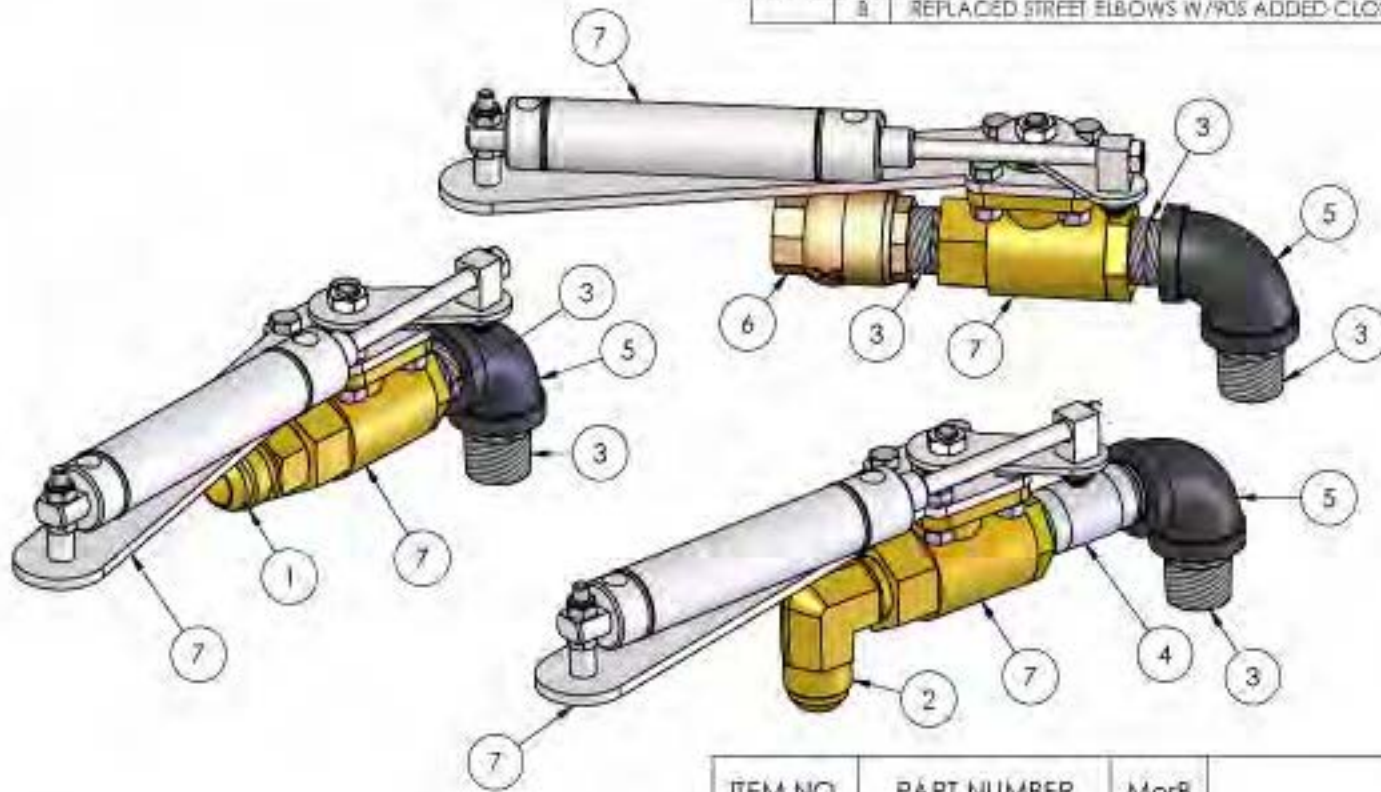
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7/16" = .4375	15/16" = .9375
1/2" = .50	1" = 1.00



UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES	DRAWN	DMP	11-30-09
TOLERANCES:	CHECKED		
FRACTIONAL ± 1/32	BYD APPE	RTC	11-30-09
ANGULAR: MACH ± 1.0° BEND ±	DO NOT SCALE DRAWING		
TWO PLACE DECIMAL ± .02	MAKE OR BUY:	M	
THREE PLACE DECIMAL ± .003			
FILTERED GEOMETRY			
STRAIGHTENING PER: ANS			
(MATERIAL)			
1/8"			
1/4"			

BEARCAT MFG.		
TITLE: GUARD ASM RX-MILLING MACH		
Universal RX Milling skid		
SIZE	DWG. NO.	REV
B	205964	A
SCALE: NONE	WEIGHT: 6.93	SHEET 1 OF 1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	REPLACED STREET ELBOWS W/ROD ADDED CLOSE NIPPLES & 90D12MJ-12MP	4/7/10	JDC/RTC



ITEM NO.	PART NUMBER	MorB	DESCRIPTION	Default t/QTY.
1	12MJ-12MP	B	C5205X12	1
2	90D12MJ-12MP	B	C5405X12	1
3	FIT-28004	B	NIPPLE SCH. 80 CW .750 X CLOSE	6
4	FIT-28027	B	NIPPLE SCH. 40 CW .750 X 3	1
5	FIT-28209	B	ELBOW PIPE MAL. 90DEG. .750 IN	3
6	VLV-29199	B	VALVE CHECK .750	1
7	VLV-42927	M	VALVE ASM. .75 2-WAY AIR ACCUATED SP200	3

CONVERSION CHART	
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 MANUFACTURED IN THE USA
 100% QUALITY CONTROLLED
 100% CUSTOMER SATISFACTION
 100% SERVICE AND SUPPORT
 100% HONESTY AND INTEGRITY

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES:
 TOLERANCES:
 FRACTIONAL: 1/32
 ANGULAR: MACH ± 1/8° BEND ±
 TWO PLACE DECIMAL ± .02
 THREE PLACE DECIMAL ± .008

WHEELS GET WORK
 EXTERIORING W/ 303
 MATERIAL

FINISH:
 N/A

	NAME	DATE
DRAWN	DMP	6-23-09
CHECKED		
ENG APPL.	RTC	6-23-09
DO NOT SCALE DRAWING		
MAKE OR BUY:	M	

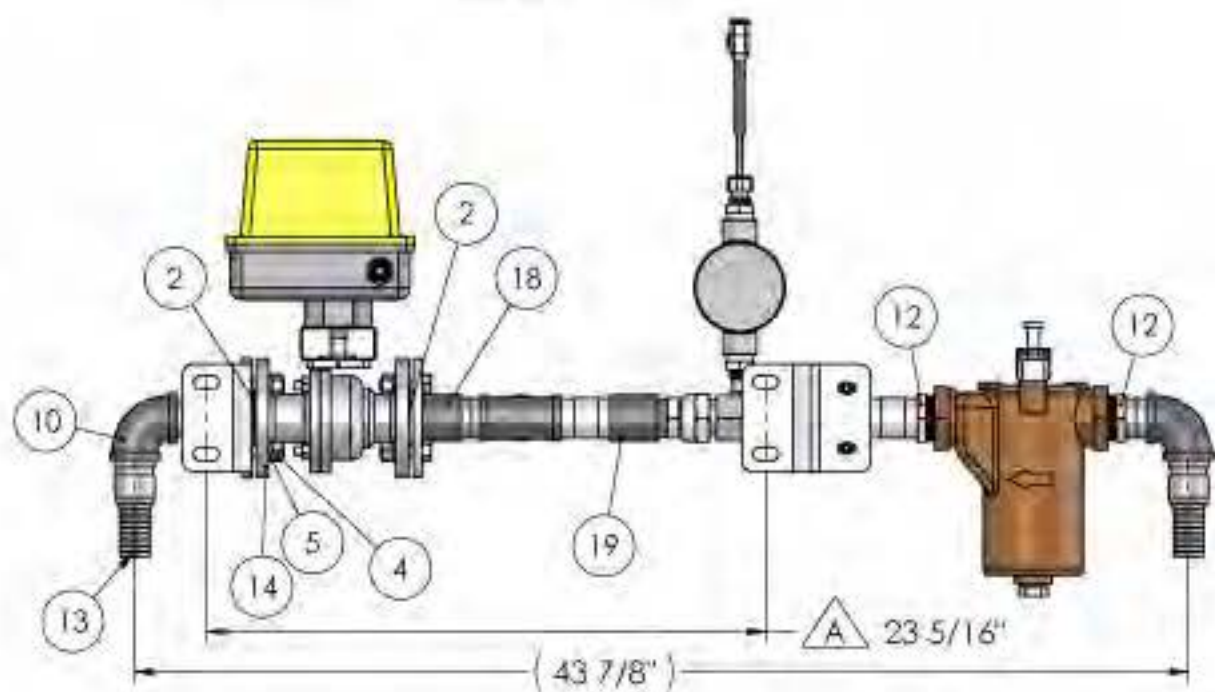
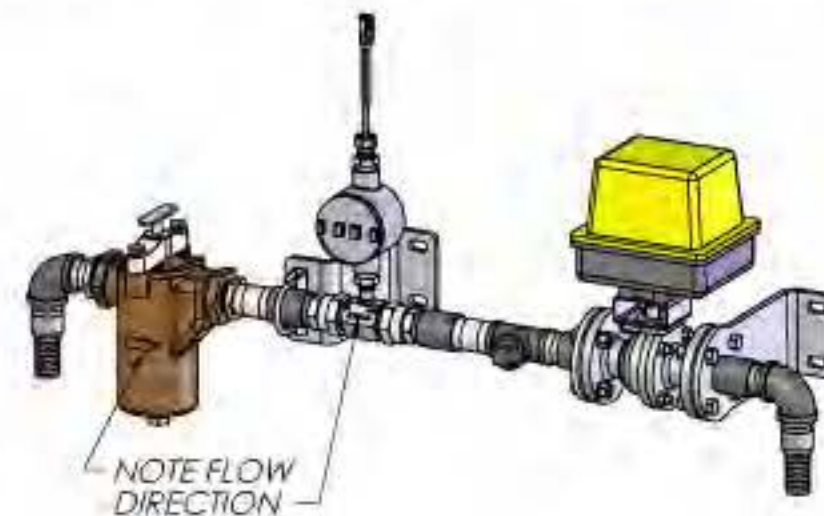
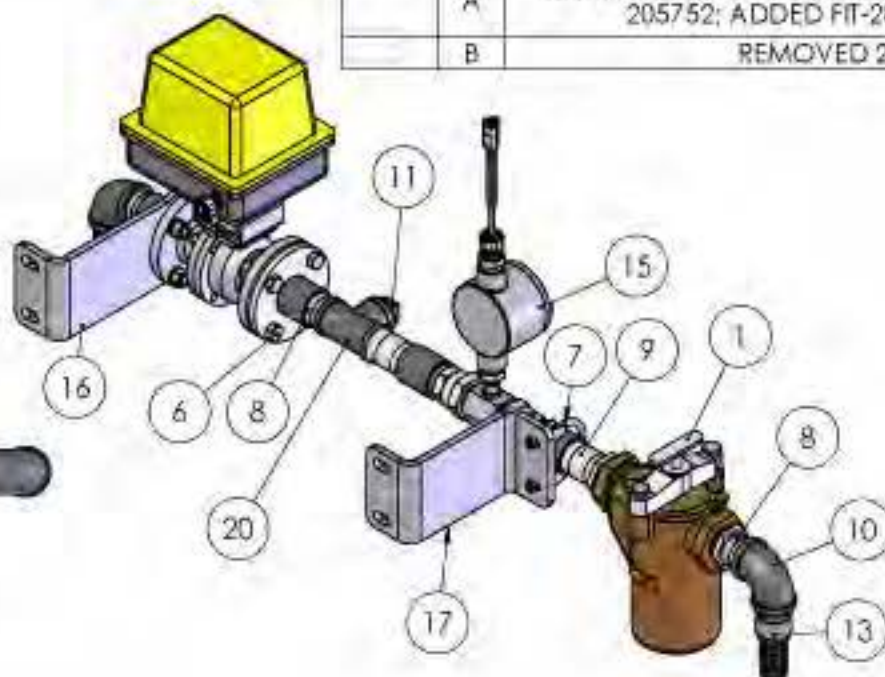
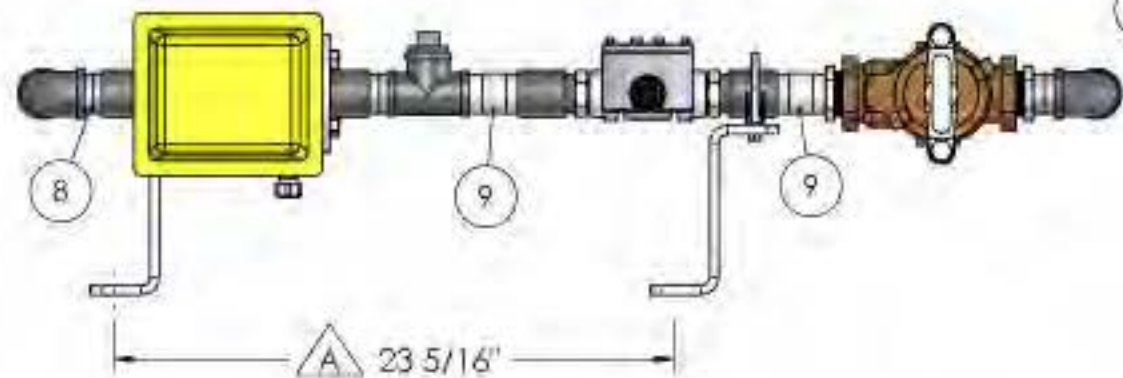
BEARCAT MFG.

TITLE:
 REAR FLUSH VALVE ASM

Cold in place Recycler

SIZE	DWG. NO.	REV
A	OPT-94001	B
SCALE: NONE	WEIGHT: 14.79	SHEET 1 OF 1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROV.
	A	REPLACED RNG-29053 WITH 205751; REMOVED FIT-28181 & FIT-42092, NOW ON 205752; ADDED FIT-28357G & 20FJ-20MP; DIM 23 5/16 WAS 19 1/4"	2/11/10	8G/RC/DP
	B	REMOVED 205595 AND ADDED IT'S COMPONENTS	8/9/2011	BM



ITEM NO.	PART NUMBER	MatB	DESCRIPTION	QTY.
1	204920	B	STRNR ASM BRNZ 1.5" IN/OUT NPT 80 MESH SCRN	1
2	205751	B	GASKET 3.25 O.D. X 1.125 I.D. X 1/8"	2
3	20FJ-20MP	B	9100X20X20	2
4	FAS-28504	B	NUT HEX GR5 ZINC .50-13	8
5	FAS-28649	B	WASHER SPLIT LOCK GR5 ZINC .50 IN	8
6	FAS-28763	B	CAP SCR, HEX GR5 ZINC .50-13 X 1.750	8
7	FAS-29364	B	CLAMP MUFFLER 2 IN	1
8	FIT-28006	B	NIPPLE SCH. 80 CW 1.250 X CLOSE	3
9	FIT-28029	B	NIPPLE SCH. 40 CW 1.250 X 3	2
10	FIT-28211	B	ELBOW PIPE MAL 90DEG 1.250 IN	2
11	FIT-28286	B	PLUG PIPE MAL 1.250 IN	1
12	FIT-28357G	B	BUSHING HEX 1.50 X 1.250 GALV.	2
13	FIT-28663	B	NIPPLE KING 1.250 IN	2
14	203962	M	VALVE ASM 1-1/2 ELC ACTUATED S/S BALL	1
15	204715	M	FLOW METER ASM	1
16	205064	M	MNT ASM 1-1/2 VLV ELC ACT 24V	1
17	205594	M	MNT MUFF CLP OPT WATER SYS CIR	1
18	205752	M	FLANGE COUPLING ASM	1
19	FIT-28181	M	COUPLING MERCH. STEEL 1.250 IN	2
20	FIT-28256	M	TEE PIPE MAL 1.250 IN	1

1/16" = .0625	9/16" = .5625
1/8" = .125	5/8" = .625
3/16" = .1875	11/16" = .6875
1/4" = .250	3/4" = .750
5/16" = .3125	13/16" = .8125
3/8" = .375	7/8" = .875
7/16" = .4375	15/16" = .9375
1/2" = .50	1" = 1.00



UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES	TOLERANCES:	DRAWN	DMP 12-3-09
FRACTIONS: 1/32	ANGULAR: MATCH 1.0° BEND ± TWO PLACE DECIMAL ± .01	CHECKED	
THREE PLACE DECIMAL ± .005		ENG APPE	ETC 12-3-09
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5M	MAKE OR BUY:	M	
MATERIAL:			
FINISH:			

BEARCAT MFG.		
TITLE: WATER CTRL SYS RX MILLING MACH KIT# 231387-03		
CIR Options		
SIZE	DWG. NO.	REV
B	205542	B
SCALE: NONE	WEIGHT: 138.37	SHEET 1 OF 1