DEV NUMBER:	ORIGINATOR:	DATE:
DEV25-0061	**Alonso Sánchez Soltero**	13FE25

DMR# (IF APPLICABLE):	DEVIATION TYPE:
3418970	NEW ☑ EXTENSION ☐ OF DEV#:

TOP-LEVEL SKU P/N(S) AND MODEL NUMBER(S): All Mini-Maxi/Maxi-Paw & Maxi Bird models

PROJECT NAME OR NO. (OPTIONAL):

RAIN BIRD

DEVIATION FORM (DRAWING)

FORM#233813-01 REV: R

EFFECTIVITY DATE:	EXPIRATION DATE:
11FE25	11MY25

BUSINESS UNIT (SBU and PLANT) W/ PRIMARY DESIGN CONTR: 025 OTY > > > CTR

SHEET: 1 OF 2

AFFECTED MFG PLANTS (WHERE USED):

005 LAM ☐	013S STL ☐	025 OTY ☑	041 NOG ☐
008 BUY ☐	019 AZU ☐	028 TUC ☐	047 TUC ☐
013E EEX ☐	020MX NMD ☐	026 ELG ☐	CHINA ☐

REASON FOR DEVIATION:

To continue production with out of specification dimension in FULCRUM PIN 202365. Critical dimension 1.005 - 1.035 measured at incoming inspection to be at 0.9692 - 1.0129.

RISK ASSESSMENT/ CORRECTIVE ACTION PLAN (NAMES & DATES)/ COMMITMENT:

Low. Dimension at current measurement below the specified tolerance does not affect product fit, form, function nor final product performance. Previous deviations at rev J1 & J2 have allowed a lower tolerance than the current lowest measurement at .954in with no documented issues.
Corrective action:
- Collect spc data for rotation times and startup pressure for production with the manufacturing dates of pin 202365 documented in sheet two. Resp L.G. Escalante
- PRC testing of units with lowest measured pins for worst case scenerio fit. Resp A. Sanchez
- Analyze PRC testing data and drawing change for fulcrum pin 202365 to lower dimension tolerance and add critical for manufacturing specification on pin to body assm. Resp A. Sanchez.

DRAWING NUMBER:	DRAWING REVISION:	DEVIATION REVISION:	DRAWING TITLE/ PART DESCRIPTION:	VENDOR:
202365	J	J3	PIN, FULCRUM - PAW FAMILY	047400 - GROOV-PIN

APPROVALS (ALL REQUIRED):

QUALITY MGR. OR QUALITY ENG.
Ramiro Casas / L.G. Escalante

MANUFACTURING ENGINEER
Cinthia Yarely Espinoza

PROD. ENG. MGR. OR PLANT ENG. MGR
Paul Dibene / Xavier Vela

BUYER OR BUYER/PLANNER
Sergio Herrera / Oscar Santillan

PLANT MANAGER
Jorge Borquez

SBU PRODUCT MGR. OR SBU ENG. MGR
Marc Gruslin; Sergio Bermudez

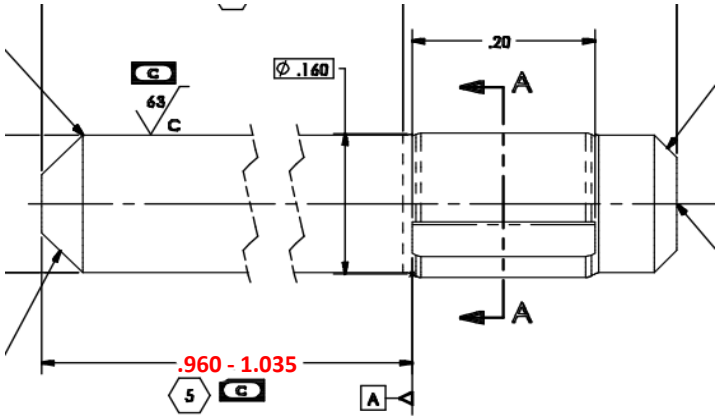
OTHER:

QUALITY DIRECTOR (REQUIRED FOR BACK-TO-BACK DEVIATIONS)

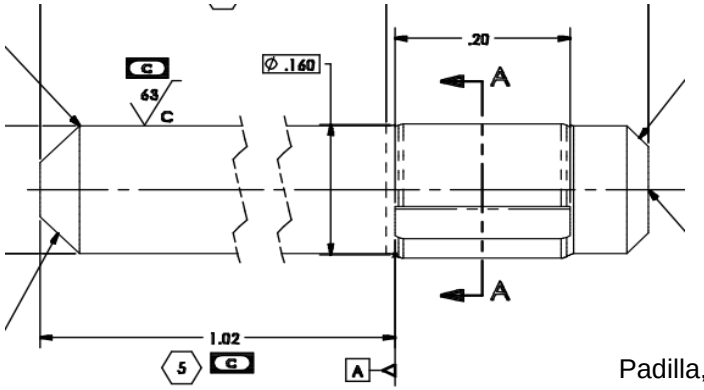
DESCRIPTION OF DEVIATION (IS/WAS CONDITION AND DRAWING ZONE FOR EACH PART NO. OR ATTACH REDLINE PRINTS):

See sheet 2 for dimensional analysis of assembled parts. Conclusion is lower dimension will not prevent pin from fully engaging in body assembly.

IS: Zone C6, dimension to be 0.960 - 1.035 in.



WAS: Zone C6, dimension was 1.02 +/- 0.015 in.



Padilla, Jesus NOG

Digitally signed by Padilla, Jesus NOG
DN: cn=Padilla, Jesus NOG ou=Engineering e=jpadilla@rainbird.com
Reason: I am the author of this document
Location:
Date: 2025-02-17 11:11-07.00

DEV NUMBER:	ORIGINATOR:	DATE:
DEV25-0062	**Alonso Sánchez Soltero**	13FE25

DMR# (IF APPLICABLE):	DEVIATION TYPE:
3418970	NEW ☑ EXTENSION ☐ OF DEV#:

TOP-LEVEL SKU P/N(S) AND MODEL NUMBER(S):
All Mini-Maxi/Maxi-Paw & Maxi Bird models

PROJECT NAME OR NO. (OPTIONAL):

RAIN BIRD

DEVIATION FORM (DRAWING)

FORM#233813-01 REV: R

EFFECTIVITY DATE:	EXPIRATION DATE:
11FE25	11MY25

BUSINESS UNIT (SBU and PLANT) W/ PRIMARY DESIGN CONTR: 025 OTY > > > CTR

SHEET: 2 OF 2

AFFECTED MFG PLANTS (WHERE USED):

005 LAM ☐	013S STL ☐	025 OTY ☑	041 NOG ☐
008 BUY ☐	019 AZU ☐	028 TUC ☐	047 TUC ☐
013E EEX ☐	020MX NMD ☐	026 ELG ☐	CHINA ☐

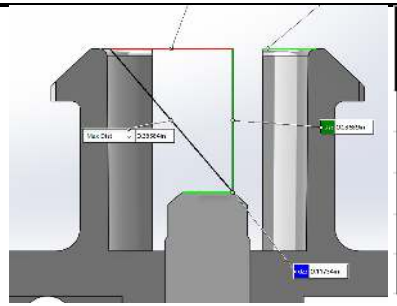
Dim 1.02 +/- .015 for 202365 FULCRUM PIN by Manufacturing Date

1/15/2025	1/16/2025	1/17/2025	1/21/2025
1.0063	1.0022	0.9988	0.9988
1.0006	1.0042	0.9917	1.0009
0.9923	1.0002	1.0067	0.9995
0.9961	1.0006	0.9999	1.0023
0.9909	1.0067	1.0107	1.0001
0.9909	1.0007	0.9987	1.0088
0.9921	1.0004	1.0051	0.9996
0.9902	1.0104	0.9953	0.9964
0.9949	0.9947	0.9903	0.9992
0.9976	0.9980	1.0033	1.0034
0.9964	1.0053	0.9954	0.9870
1.0020	0.9951	0.9934	0.9987
1.0032	0.9981	0.9931	0.9936
0.9911	0.9961	1.0010	0.9987
1.0022	1.0032	0.9937	1.0014
0.9974	0.9961	0.9886	1.0089
1.0030	1.0023	0.9995	0.9964
0.9944	0.9958	1.0086	1.0045
0.9993	0.9875	0.9974	1.0072
0.9954	0.9943	0.9893	0.9901
0.9914	0.9972	0.9965	0.9982
1.0036	1.0079	0.9962	1.0047
0.9919	1.0039	1.0030	1.0037
1.0019	1.0046	0.9953	1.0070
0.9989	1.0067	0.9943	0.9971
0.9956	1.0078	1.0095	1.0129
0.9935	0.9994	1.0017	1.0040
1.0011	0.9992	0.9878	1.0006
0.9962	1.0074	1.0054	1.0061
0.9946	1.0065	0.9936	0.9996
1.0102	1.0039	0.9904	1.0048
0.9905	1.0012	0.9934	1.0047
1.0012	0.9995	1.0059	0.9908
0.9925	0.9998	0.9982	1.0007
1.0014	1.0036	1.0018	0.9985
0.9979	1.0079	1.0002	0.9966
1.0009	0.9999	0.9889	1.0014
0.9906	0.9955	0.9867	1.0038
1.0033	1.0059	1.0096	1.0087
0.9948	1.0025	0.9956	1.0094
1.0038	1.0074	1.0006	0.9985
0.9978	1.0112	0.9981	1.0084
1.0082	1.0010	0.9947	1.0030
0.9972	1.0072	0.9975	1.0021
0.9995	1.0061	0.9864	1.0015
0.9977	1.0045	0.9934	1.0045
1.0011	1.0018	1.0103	1.0035
0.9926	1.0025	0.9963	0.9999
0.9987	1.0062	1.0102	1.0055
1.0038	1.0047	0.9890	0.9974
0.9923	1.0004	0.9692	1.0001
0.9986	1.0017	0.9943	1.0012
0.9911	1.0048	0.9950	0.9905
0.9902	1.0098	0.9960	1.0014
0.9948	1.0001	0.9924	1.006
0.9933	1.0073	1.0071	1.0075
0.9993	1.0028	1.0030	0.9989
0.9940	0.9962	1.0043	1.0064
0.9962	1.0108	1.0012	0.9906
0.9922	1.0081	1.0033	1.0018
0.9963	0.9977	0.9964	1.0002
1.0011	1.0098	0.9959	1.0065
1.0037	1.0062	0.9995	1.0069
0.9924	1.0055	0.9901	0.9912
1.0014	1.0073	1.0037	1.0072
1.0004	1.0082	1.0005	0.9941
0.9995	1.0052	0.9963	0.9961
1.0041	1.0064	1.0041	1.0032

	MIN	MAX
SPEC	1.005	1.035

Current Measurement Data

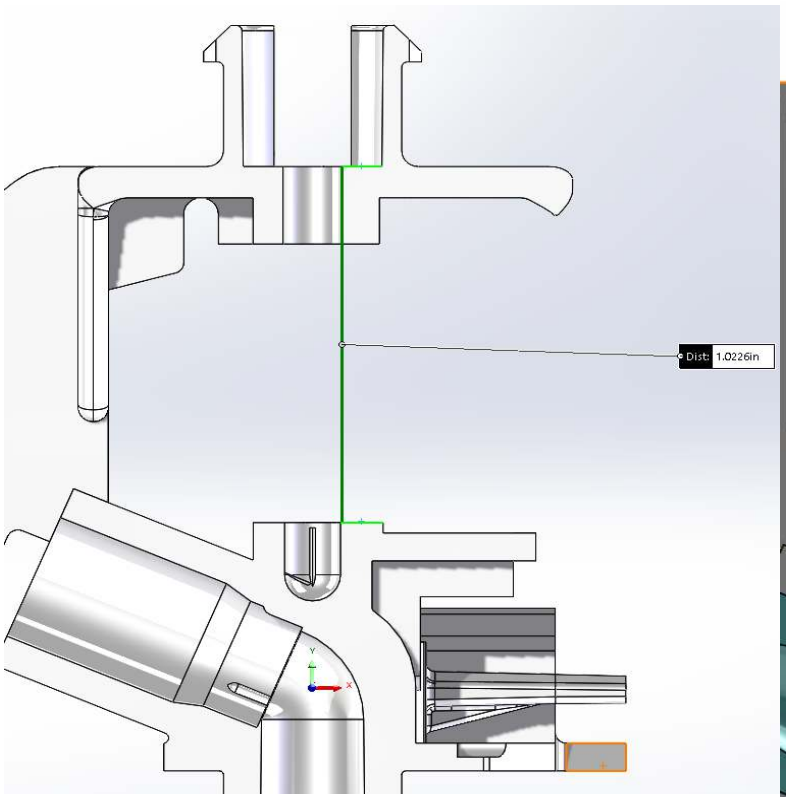
Min	Max	StdDev
0.9692	1.0129	0.006021

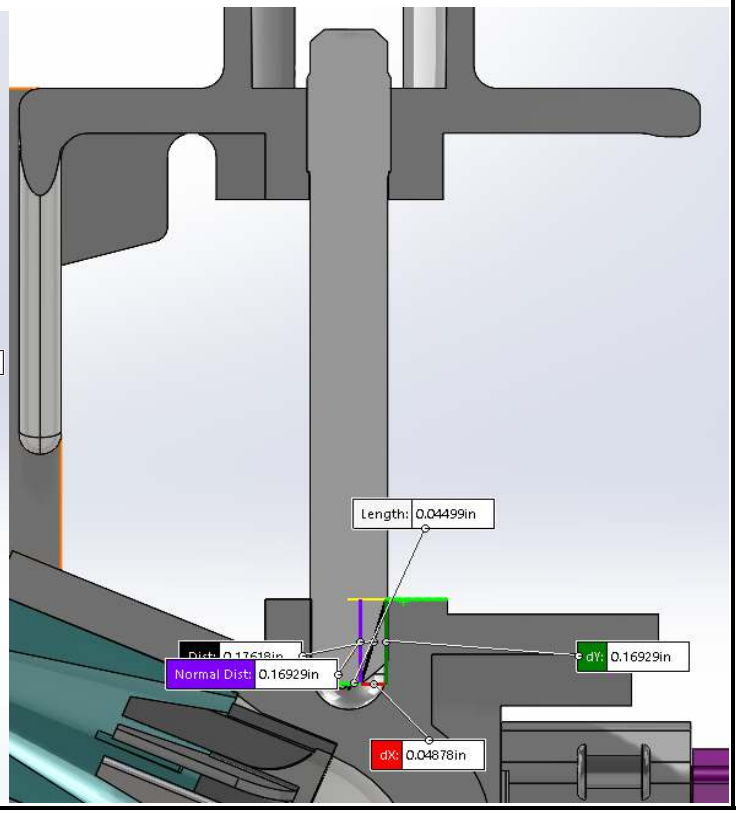


Assembly dimension of Fulcrum Pin (CAD @ .287)

0.3045	0.3015	0.3055	0.298	0.302
0.304	0.3	0.293	0.303	0.3
0.296	0.299	0.3005	0.301	0.3015
0.3005	0.3015	0.3045	0.2985	0.3035
0.3045	0.3055	0.299	0.3035	0.2865

Conclusion: With measurements from 25 assemblies we can assure that the position of the grooves at the top of the pin being out of specification at the lower end of the tolerance will not affect product function. This is because pin full length is around nominal with dimensions ranging from 1.305 - 1.315 and the insertion of the pin, which is verified by the above dimensions will still allow for pin to fullly engage at the bottom end of the assembly in the body.





Sanchez, Alonso OTY 4306

From: Sanchez, Alonso OTY 4306
Sent: Thursday, February 13, 2025 4:45 PM
To: Gruslin, Marc SOPT 6521; Bermudez, Sergio SOPT; Casas, Ramiro OTY 4364; Escalante, Luis Gerardo OTY 4307; Montero, Jose Luis OTY 4361; Espinoza, Cinthia Yarely OTY 4340; Dibene, Paul OTY2 4687; Vela, Xavier OTY 4377; Herrera, Sergio OTY 4392; Santillan, Oscar OTY 4311; Borquez, Jorge OTY 4398; Sanchez, Alonso OTY 4306
Subject: DEV25-0061 for approval
Attachments: DEV25-0061 202365 Fulcrum Pin.xls.xlsm

Tracking:

Recipient	Response
Gruslin, Marc SOPT 6521	Approve: 2/14/2025 7:49 AM
Bermudez, Sergio SOPT	Approve: 2/15/2025 1:31 PM
Casas, Ramiro OTY 4364	Approval by J.L. Montero
Escalante, Luis Gerardo OTY 4307	Approval by J.L. Montero
Montero, Jose Luis OTY 4361	Approve: 2/13/2025 4:53 PM
Espinoza, Cinthia Yarely OTY 4340	Approve: 2/13/2025 4:49 PM
Dibene, Paul OTY2 4687	24 hr rule invoked
Vela, Xavier OTY 4377	Approve: 2/14/2025 9:57 AM
Herrera, Sergio OTY 4392	Approve: 2/13/2025 4:55 PM
Santillan, Oscar OTY 4311	Approve: 2/14/2025 11:54 AM
Borquez, Jorge OTY 4398	24 hr rule invoked
Sanchez, Alonso OTY 4306	Approve: 2/13/2025 4:45 PM

Hello team,

Please review and submit resolution for attached ECO at your soonest convenience. If there are any questions of concerns feel free to contact me.

The purpose of this ECO is to continue production with out of specification dimension in FULCRUM PIN 202365.
Critical dimension 1.005 - 1.035 measured at incoming inspection to be at 0.9692 - 1.0129.
Attached document has further analysis on the out of specification conditions of the pin.

24hr rule will apply (weekend not included)

Kind regards and thanks