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ATLANTIC CUSTOM BEARINGS

Crossed Cylindrical Roller Bearing ACB 391902

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Application: *Phoenix line turning table bearing*



Operation Features:

Load capacity for forged rings up to 12 Tons

Speeds from 0-125rpm

Hydraulic oil lubricant ISO 46

Operates 24/7

Exposed to high impact loads during setting of rings.

Average bearing life: 18 months aprox. Type of Failure.



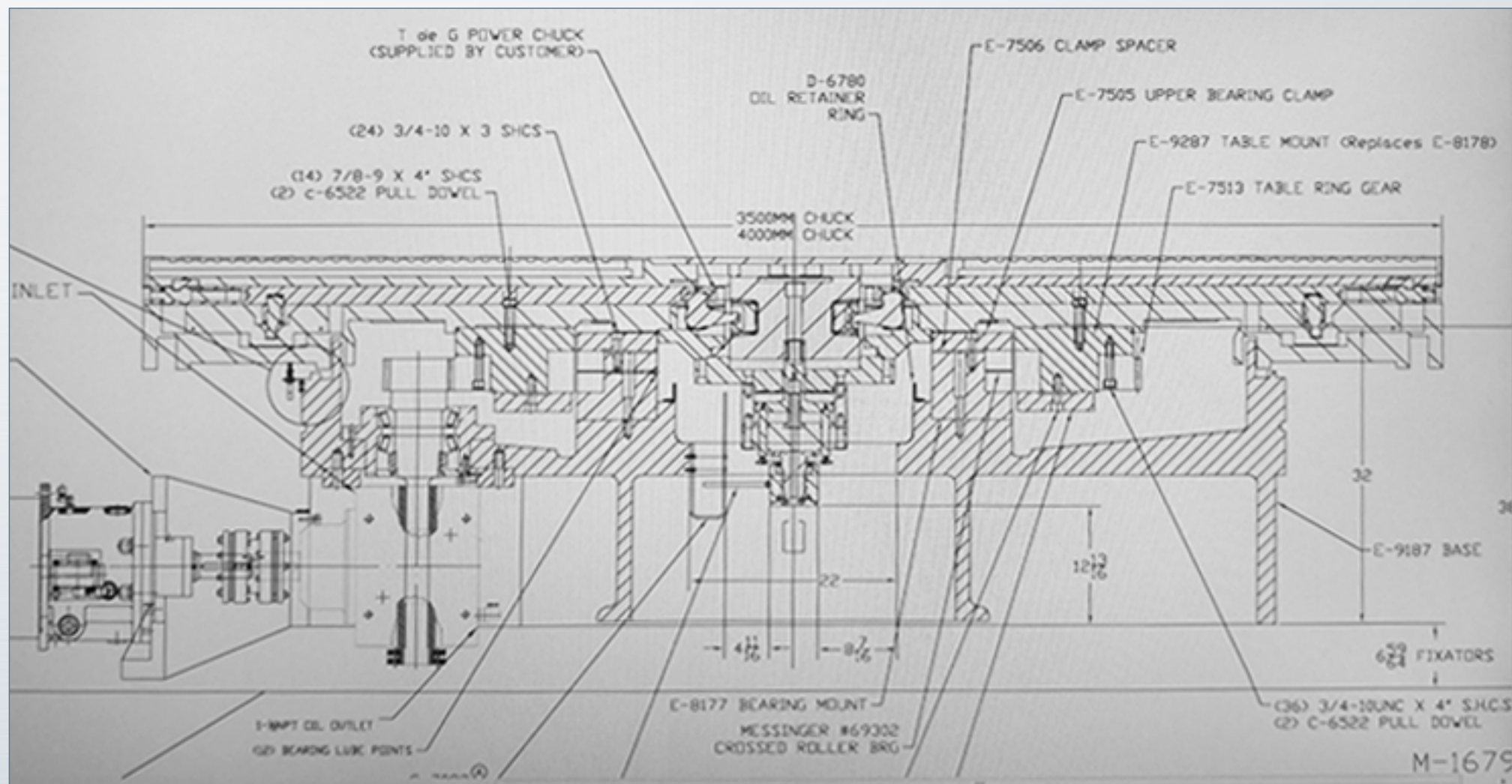
Longitudinal roller fracture

Fracture originates and propagates from the center



Deformed nylon caps

Phoenix Line turning table assembly drawing



Crossed Cylindrical Roller Bearing ACB 391902 Features

Forged, carburized steel rings and rollers

Raceways with superfinishing

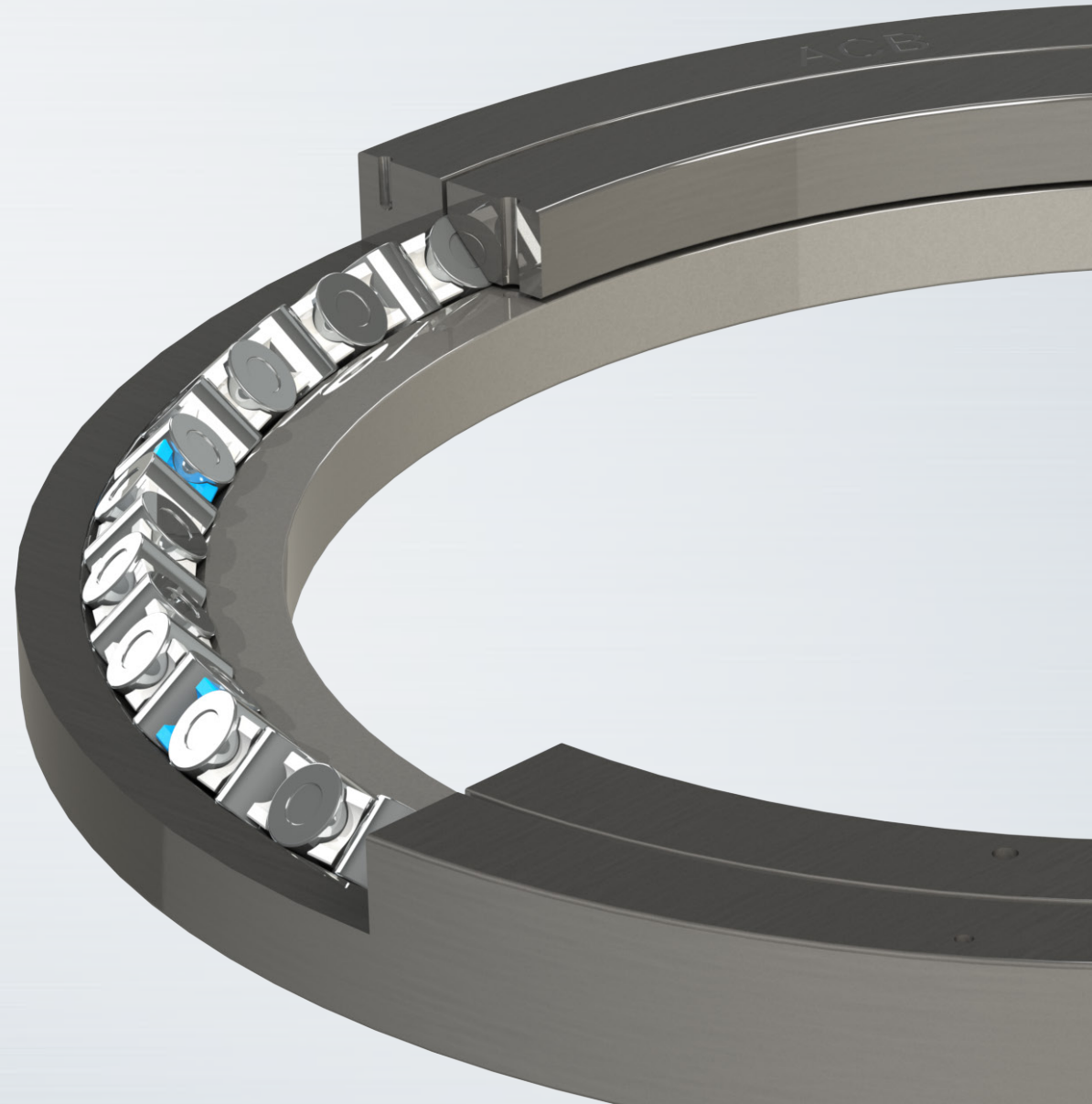
Solid cylindrical rollers with no center hole,

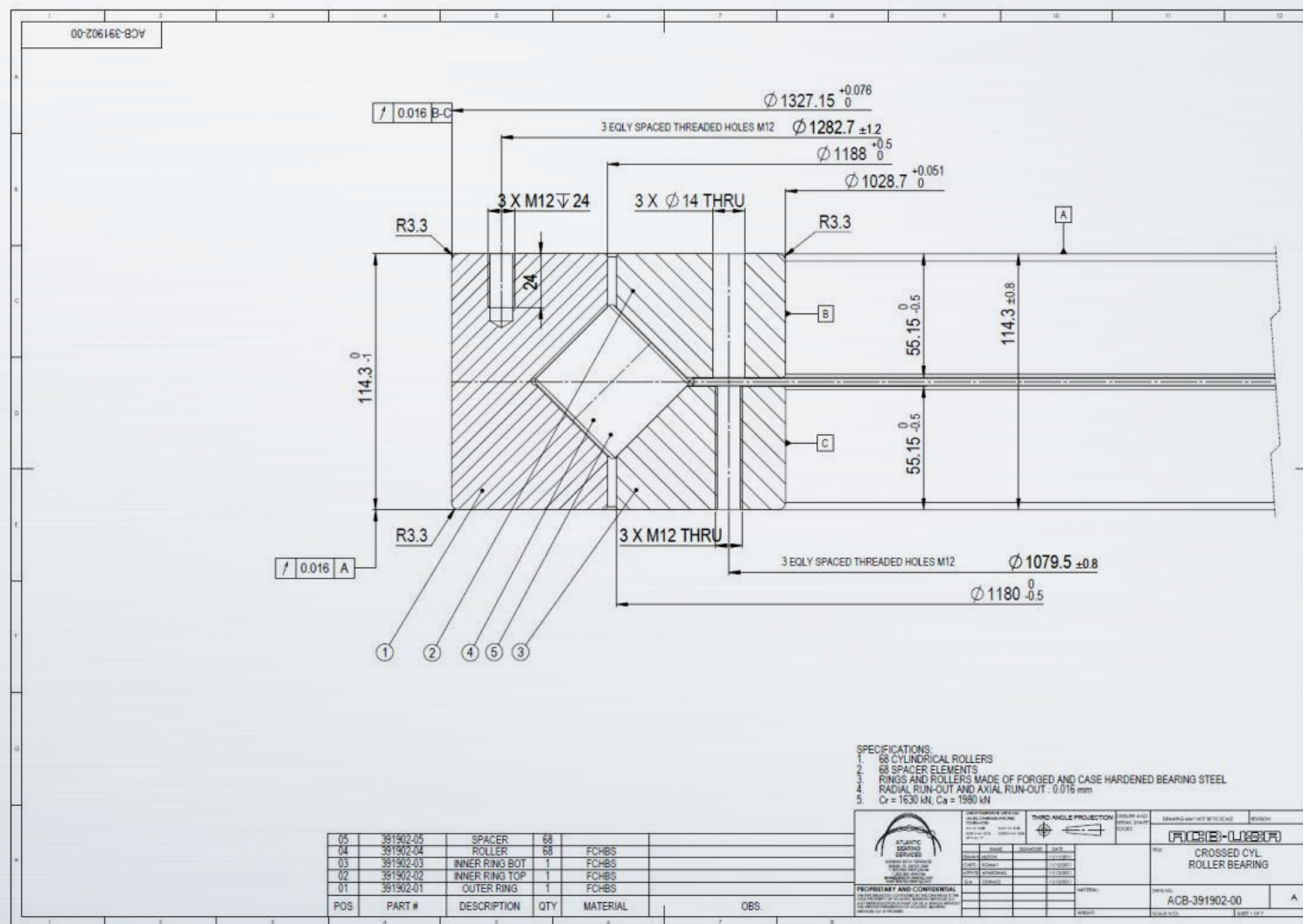
Optimized roller profile, increased roller diameter and length for maximum load capacity

Special ring groove design to reduce friction and enhance lubrication film

P5 precision class

High mechanical resistance engineered plastic spacers with low coefficient of friction and optimized design





Crossed cylindrical roller bearing ACB 391902

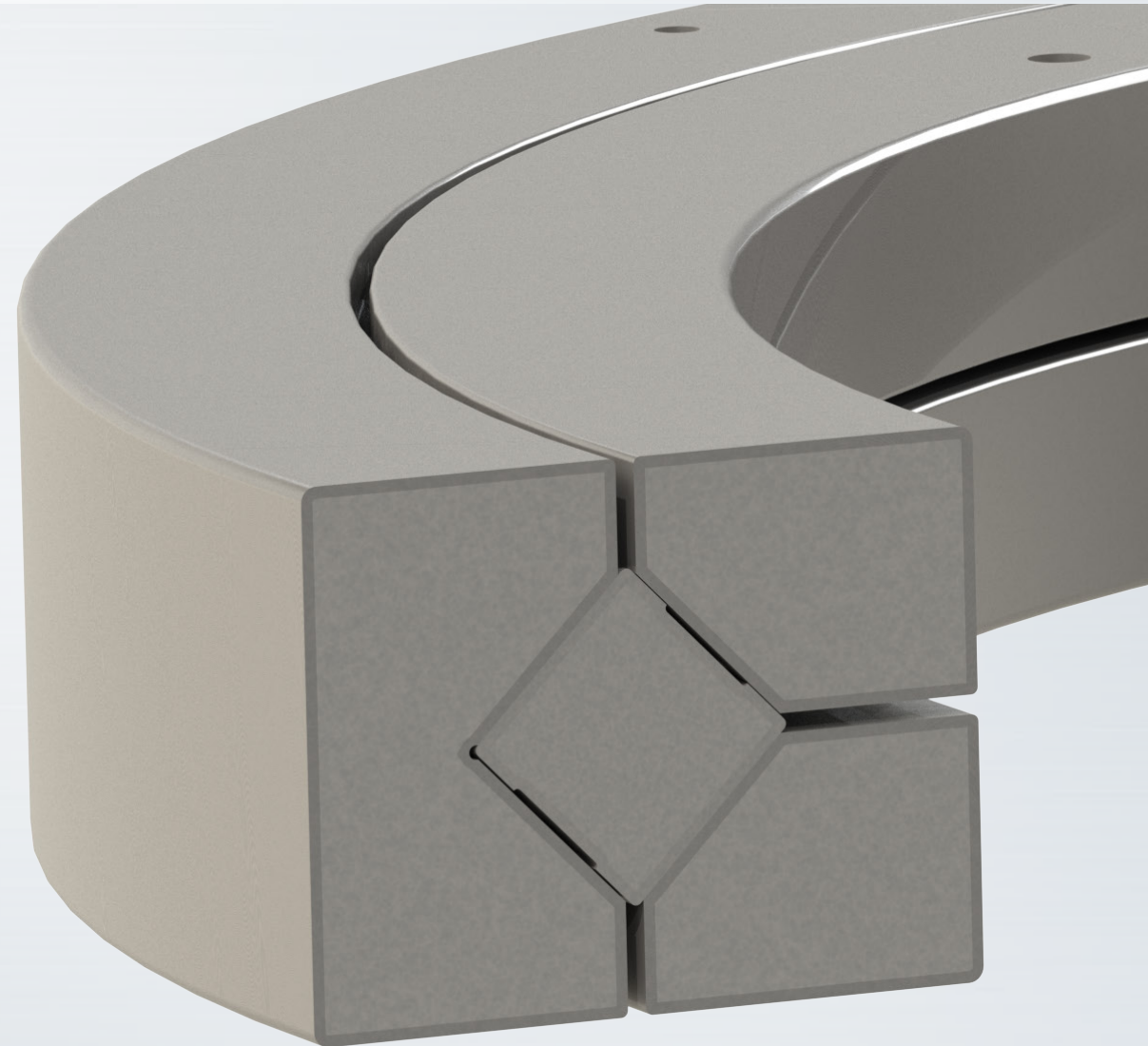
Forged, carburized steel rings and rollers

Resistance to fatigue wear 2x that of
through hardened steel bearings

Higher impact load capacity

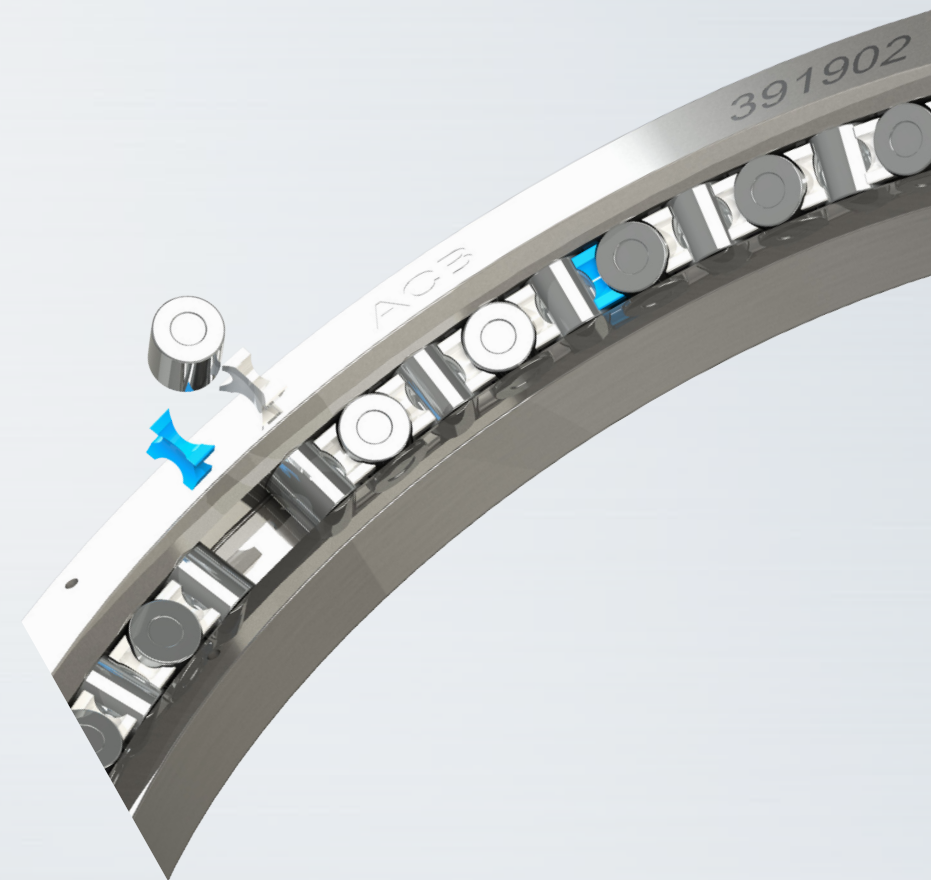
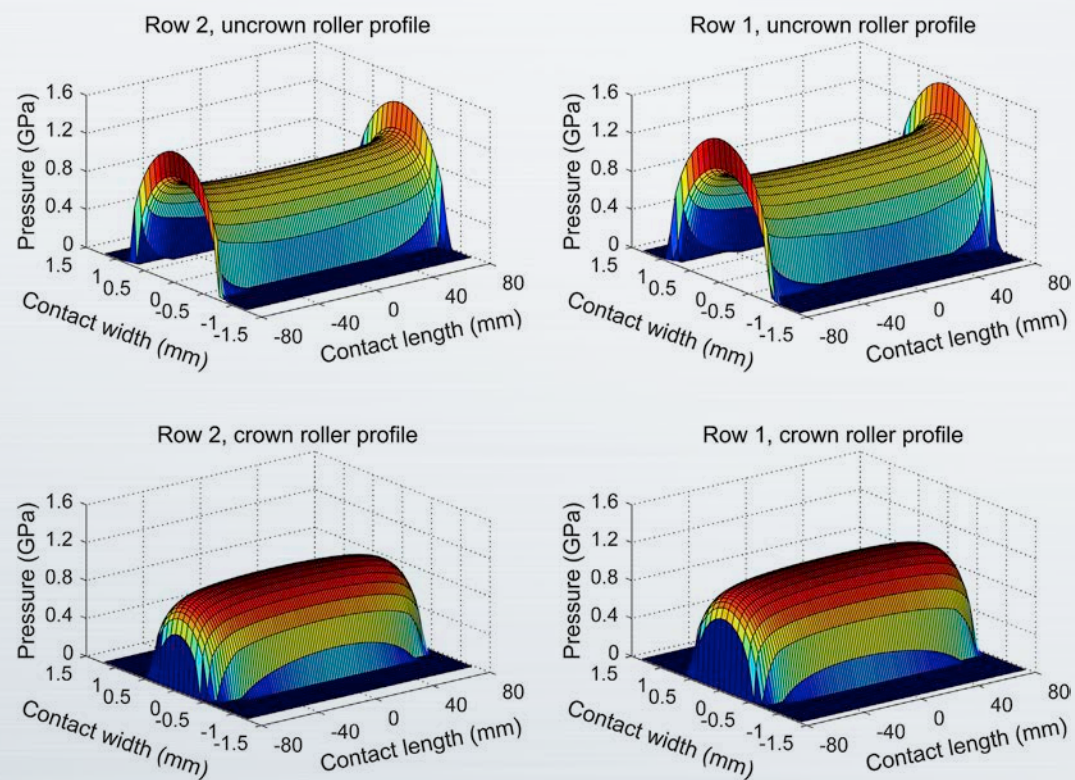
Higher resistance to contaminated environments

Slower crack propagation



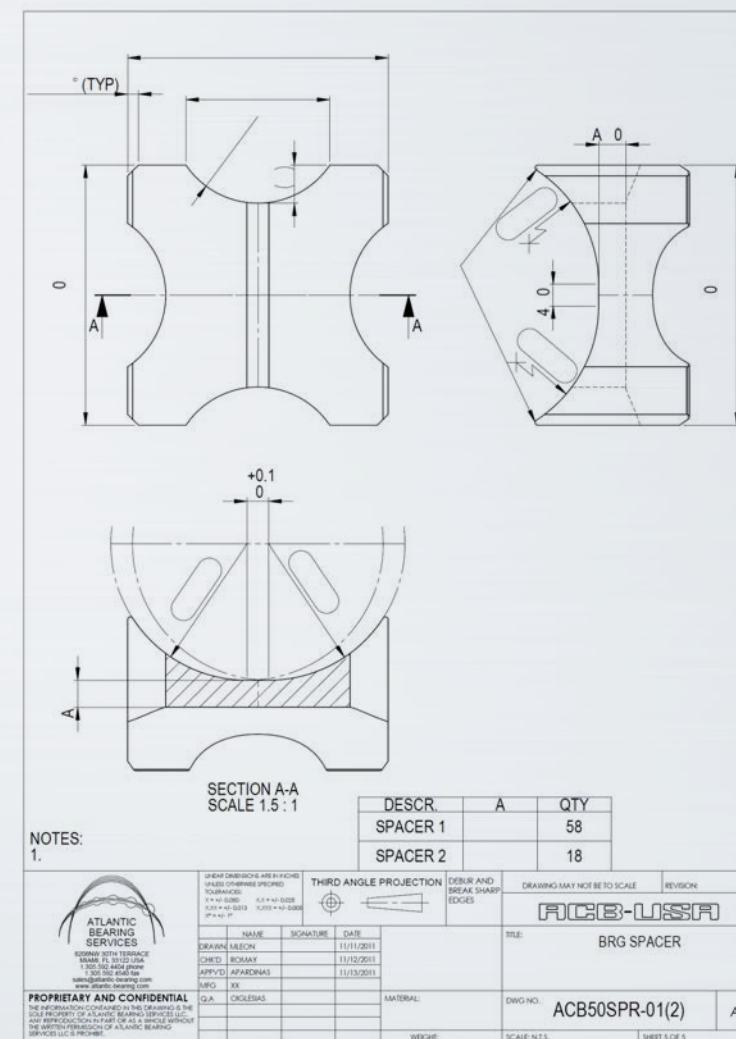
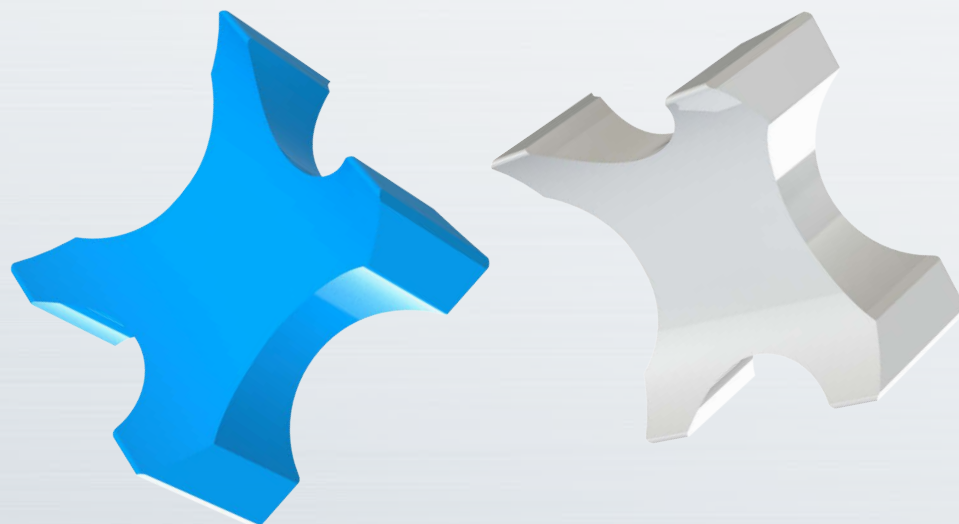
Finite Element Analysis (FEM)

Cylindrical rollers without holes, with optimized profile and larger diameter and length for maximum load capacity

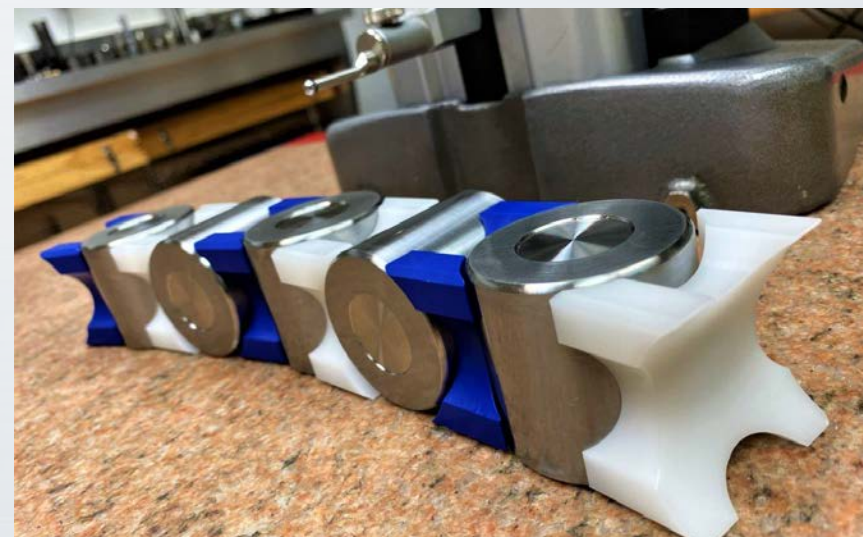


Engineered Plastic Spacers

High capacity, machined engineered plastic spacers with low coefficient of friction and optimized design to maximize free space for grease and enhanced lubrication film.



Final QC Process Miami



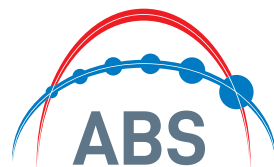
Final QC Process Miami / Assembly



Final QC Process Miami / Packaging



Final QC Process Miami / Mounting Procedure



ATLANTIC BEARING SERVICES

Title: Precision Slewing Bearing ACB 391902
Mounting Procedure

Customer: RYASA

Issued: 05/29/20

Location: Miami

Doc.# SOP-010



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Mounting Procedure (Document: ABS SOP-010)



Fig 1.5

Take one of the spacers white and place it between the tracks, then place one roller, then one spacer, then place the next roller, and so on, making sure to maintain the cross position, insert three blue rollers spaced at 120 degree. (Fig 1.6)

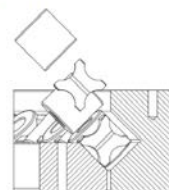


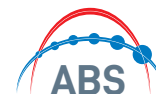
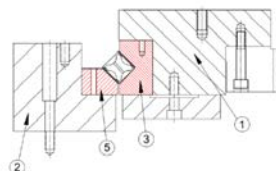
Fig 1.6

Continue to work round the bearing adding spacers and rollers alternatively until all the rollers have been fitted and there is a spacer between each roller and its neighbor. Slight pressure may be needed to insert the last spacer.

If the bearing is to be oil lubricated, the tracks and rollers should be lightly oiled. If grease lubricated, the bearing should be greased packed or (if grease replenishment points are provided) slightly greased.

2.5 Levelling and top inner race installation.

Check that the double outer race (3) is approximately parallel to the lower inner race (5). (Fig 1.7)

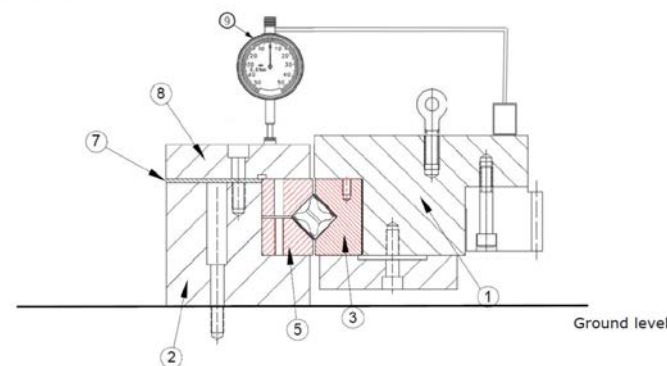


2.6.1 Adjustment clamp spacer segment width procedure

The only difference there with the previous method is that instead of using the suggested preload to define the adjustment segments width, an Initial End Play (IEP) should be considered.

$$\text{Thickness of adjustment clamp spacer segment TAS} = \text{ORF} + \text{IRF} + \text{W} - \text{HS} - \text{IEP}$$

Rotate the housing (1) until the dial indicator (9) is stabilized. Set the dial indicator (9) to zero. At this stage, the roller set "C" is seated properly by the weight of the housing (1) acting on the roller set "C".



Use adequate eyebolt and appropriate handling cranes to pull the housing (1) upwards until the bearing mount (2) is not in contact anymore with the ground reference.

Rotate the housing (1) until the dial indicator (9) stabilizes. Check and record the dial indicator (9) deviation. At this stage, the rollers set "A" should be seated correctly by the weight of the



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