



Technical Service Bulletin

AUGUST 2019 TSB358.01

HYDRAcube® Gen1 – Gen2 Comparison

This Technical Service Bulletin provides information of the differences between Gen1 and Gen2 HYDRAcubes as well as the components used during assembly.

Introduction

Based on customer feedback, product improvements have been made to the HYDRAcube header and the auxiliary components that are used to assemble a system. These improvements allow for ease of assembly, a more modular design, and allow for optimal performance during operation.

Part numbers that have been created/ modified for Gen2 are:

- 1) 13000.2000 – HYDRAcube Gen2
- 2) 13001.0000 – 6” Row End Adapter
- 3) 13003.0000 – 6” Row End Plug
- 4) 13004.0000 – 4” Row End Adapter
- 5) 13005.0000 – 4” Row End Plug
- 6) 13025.2000 – 304 SS Modular Frame
- 7) 13029.0001 – 3” 304 SS sanitary clamp
- 8) 13030.0000 – 3” Row End adapter
- 9) 13031.0000 – 3” Row End Plug

Unchanged components from Gen1 to Gen2 are:

- 1) 13027.0000 – 4” Sanitary Gasket
- 2) 13028.0000 – 6” Sanitary Gasket
- 3) 13010.0000 – 4” Sanitary Clamp
- 4) 13008.0000 – 6” Sanitary Clamp

Cube Header

| | Gen1 | Gen2 |
|----------------------|------------|------------|
| Part # | 13000.0000 | 13000.2000 |
| Material | GFRPP | GFRPP |
| Pieces/module | 2 | 2 |

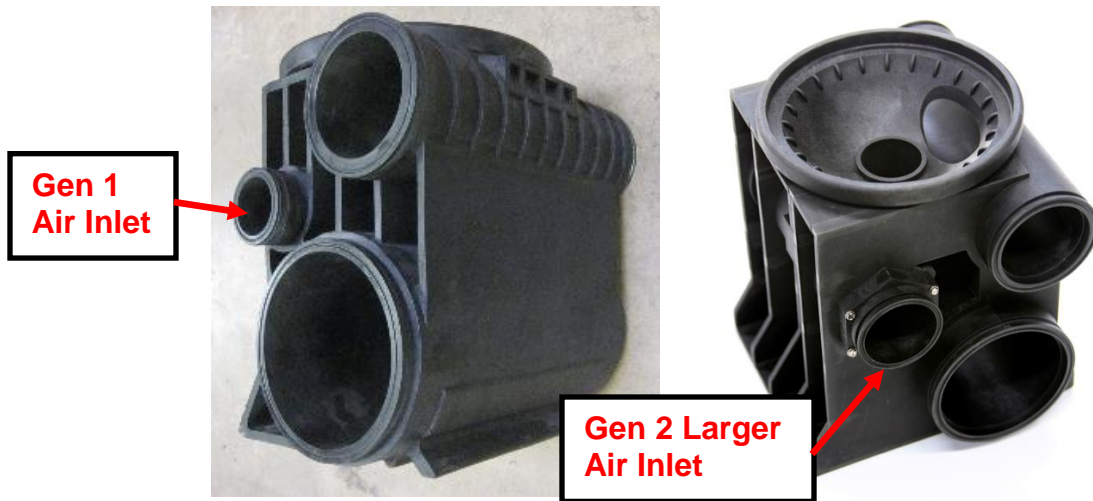


Figure 1: HYDRAcube block shows the Gen1 cube on the left and Gen2 cube on the right with a larger inlet.

- 1) Gen2 has been reduced to approximately 20lbs in comparison to the Gen1 cube at approximately 22lbs.
- 2) Gen2 air inlet has been increased to approximately 3" BPE to allow for better air flow. This can be identified by the hex fitting (See Figure 1).
- 3) Gen2 may be assembled up to 40 modules per train consisting of two rows (i.e. 2 x 20).
- 4) Gen2 cube has two locations where company logos are visible (See Figure 2). This helps the user identify the direction of the cube during assembly. (See TSB352 for assembly instructions).

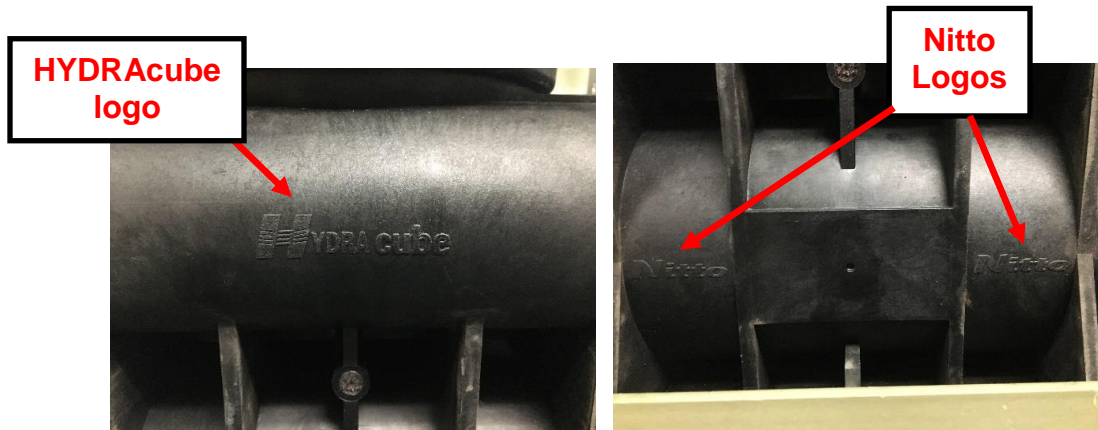


Figure 2: Gen2 design and logos help the assembler determine the cubes correct orientation.

- 5) A Male-Female seating surface has been added to the Gen2 cube in order to assist in the positioning of gasket surfaces as well as alignment of plumbing for the 4" BPE and 6" BPE connections.

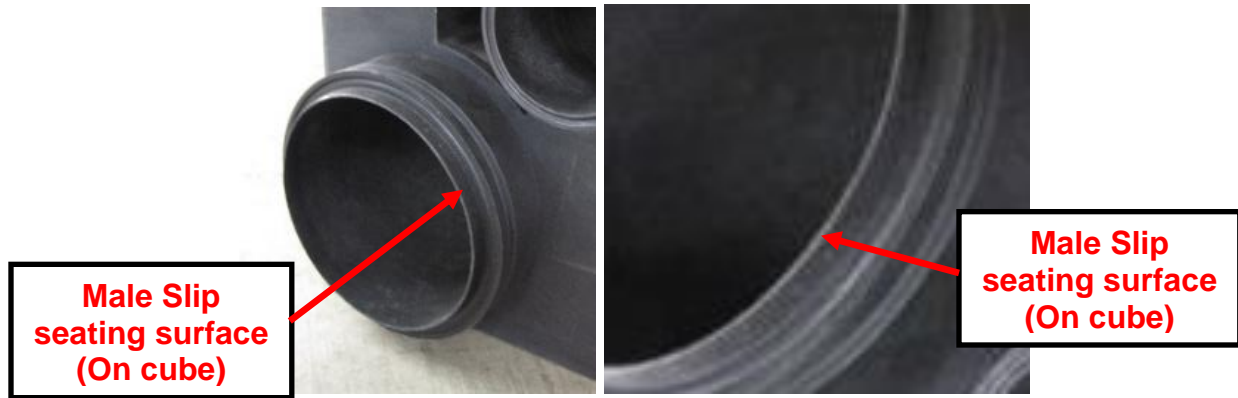


Figure 3: Gen2 male slip seating surface to help align O-Rings and adapters.

Row End Adapters & Plugs

The Gen2 4” and 6” adapters and plugs have been modified with a tapered surface to ensure alignment and a tight gasket seal . The part numbers and specifications for the Gen2 can be seen below:

| | Adapter | Adapter | Plug | Plug |
|---------------------------|------------|------------|------------|------------|
| Part # | 13001.0000 | 13004.0000 | 13003.0000 | 13005.0000 |
| Clamping Surface | 6” BPE | 4” BPE | 6” BPE | 4” BPE |
| Socket Connection* | 160 mm | 110 mm | 160 mm | 110 mm |
| Material | PVC | PVC | PVC | PVC |
| Pieces / 2 row kit | 6 | 4 | 2 | 4 |

*DIN 8062 Standard



Figure 4: 4” and 6” Row End Adapters and Plugs tapered for male slip seating surface on HYDRAcube.

Air Row End Adapters

| | Gen1 | Gen2 |
|---------------------------|------------|------------|
| Part # | 13006.0000 | 13030.0000 |
| Clamping Surface | 2" BPE | 3" BPE |
| Socket Connection | 2 inch NPS | 90 mm* |
| Material | PVC | PVC |
| Pieces / 2 row kit | 2 or 4 | 2 |

*DIN 8062 Standard



Figure 5: Row end air adapters showing clamping surface and female slip for metric PVC pipe to be glued in place.

The 2" BPE connection of air row end adapter has been replaced with a 3" BPE connection on the Gen2 HYDRAcube to allow for a more versatile designed system with a larger number of modules per train. A 3" BPE sanitary clamp helps to create a tight seal of the gasket and a 90mm female metric slip allows for tight sealing surfaces when glued into plumbing.

Air Row End Plug

| | Gen1 | Gen2 |
|---------------------------|------------|------------|
| Part # | 13007.0000 | 13031.0000 |
| Clamping Surface | 2" BPE | 3" BPE |
| Socket Connection | 2 inch NPS | 90 mm* |
| Material: | PVC | PVC |
| Pieces/ 2 row kit: | 6 | 6 |

*DIN 8062 Standard

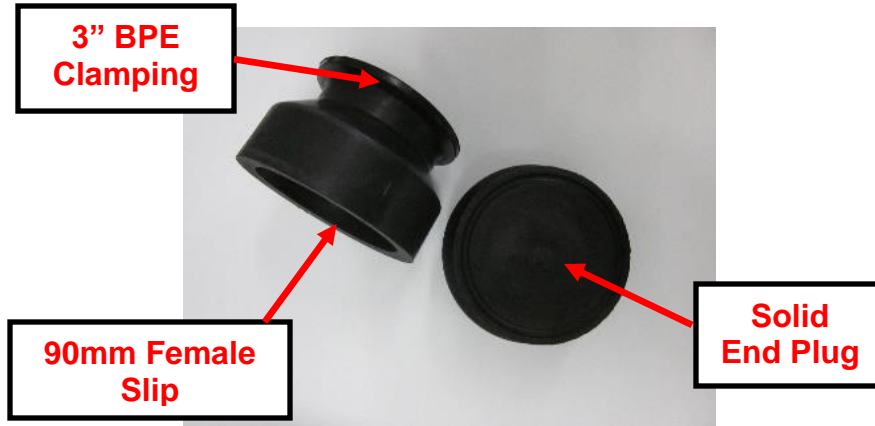


Figure 6: Row end plug adapter showing 3" BPE clamp surface and 90mm female slip for metric PVC pipe to be glued in place.

Sanitary Clamps

| | Gen1 | Gen2 |
|-------------------------|---------------------|---------------------|
| Part #: | 13012.0000 | 13029.0000 |
| Clamping Surface | 2" BPE | 3" BPE |
| Material: | 304 Stainless Steel | 304 Stainless Steel |
| Qty / 2 x 2 KIT: | 8 | 8 |

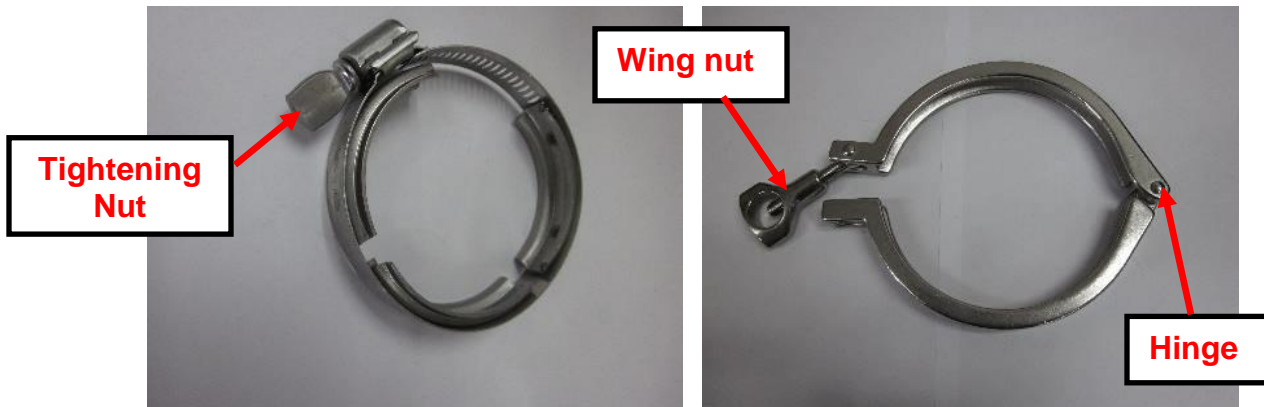


Figure 7: Gen1- 2" (Left) and Gen2- 3" (Right) stainless steel clamps used to connect headers or adapters/plugs .

The 2" BPE stainless steel clamp has changed to a 3" BPE stainless steel clamp from Gen1 to Gen2 and is used to connect header, adapters, and plugs. When the clamp is properly positioned and tightened using the wing nut, an even seal on the gaskets will not allow fluid to pass through and cause leaks.

Sanitary Gaskets

| | Gen1 | Gen2 |
|-------------------------|------------|------------|
| Part # | 13026.0000 | 13029.0001 |
| Clamping Surface | 2" BPE | 3" BPE |
| Material | EPDM | EPDM |
| Qty / 2 x 2 KIT: | 8 | 8 |



Figure 8: Row end adapter gaskets showing 2" (Left) for Gen1 and 3" (Right) Gen2.

The 2" gasket for Gen1 has been replaced with a gasket to accommodate 3" BPE connection for Gen2.

Modular Frames

| | Gen1 | Gen2 |
|----------------------------|---------------------|---------------------|
| Part # | 13025.0000 | 13025.2000 |
| Material | 304 Stainless Steel | 304 Stainless Steel |
| Length | 20.80 in (528.3mm) | 20.80 in (528.3mm) |
| Width | 28.75 in (730.2mm) | 32.40 in (823.0mm) |
| Modules / 2 x 2 kit | 4 | 4 |

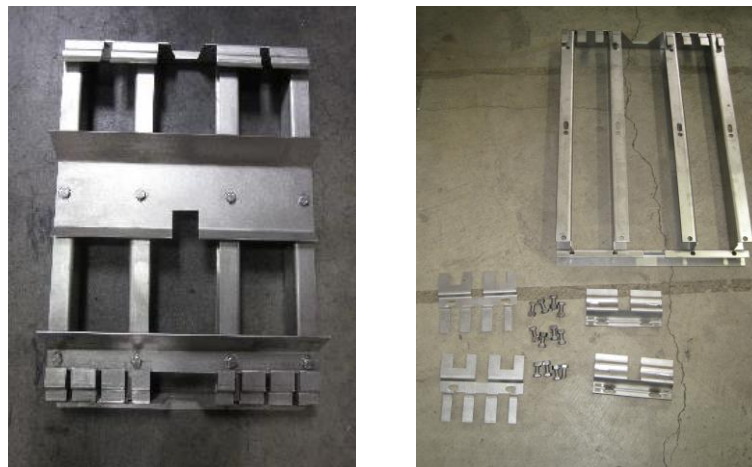


Figure 9: Gen1 2 x 2 frame (Left) and Gen2 2 x 2 Frame (Right).

Design and feature changes have been made to the HYDRAcube system frames for ease of assembly and has been modified to fit either the Gen1 or Gen2 cubes by easily replacing the support brackets.

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