

V-Band Clamps and Flanges

Finding the correct V-Band Clamp or Flange doesn't have to be complicated.

- How to Measure a V-Band Flange
- Detailed V-Band Flange Dimensions



Precision CNC machined V-Bands available in a wide range of sizes and alloys

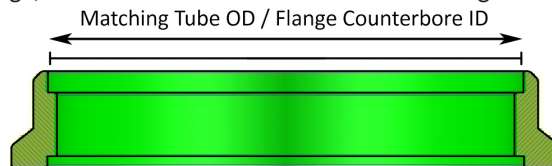
Available in sizes ranging from 1.500" to 6.000" tube size
V-Band Clamps available in Standard & Quick Release styles
V-Band Flanges – Aluminum, Mild Steel, Stainless, Titanium
Combination Assemblies available in AL/SS, MS/SS and TI/SS
Reducing V-Band Flanges & V-Band Assemblies – AL and SS

When it comes to V-Band Clamps and Flanges one of the most common questions we receive from customers is, "Why is finding a replacement V-Band component so difficult?" One of the main reasons for the difficulty of finding a compatible V-Band component is due to a lack of "industry standard sizing", or a lack of an agreed upon and recognized dimension and sizing standard by V-Band component manufacturers. The result of this lack of standardization has resulted in countless variations of similar but different sizes and styles of V-Band Flange dimensions. We hope that the information provided below will be useful for finding a matching replacement component for your existing V-Band Clamp or Flange.

TOOLS NEEDED: The existing V-Band Flange, either a ruler/tape measurer/calipers, and a pen and paper.

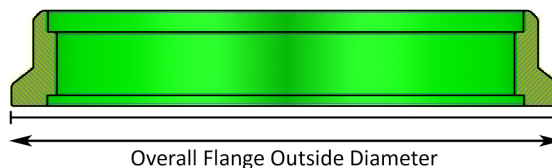
STEP 1: Matching Tube Size / Flange Counterbore ID

Using a measuring tape, ruler, or calipers, measure the inside diameter (ID) of the existing V-Band Flange. If the V-Band Flange features a counterbore, measure the ID of the counterbore. If the V-Band Flange is a slip-through design, allowing the matching tube size to slide all the way through the flange, measure the overall ID of the V-Band Flange.



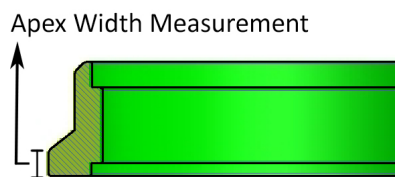
STEP 2: Overall Flange Outside Diameter (OD)

Using a measuring tape, ruler, or calipers, measure across the widest part of the "seating surface" of the flange to find the "Overall Flange OD". Note: the "seating surface" is opposite the weld side of the flange and is the side that meets together with another flange.



STEP 3: Flange Apex Width

Using a measuring tape, ruler, or calipers, measure the Apex Width, or flange edge thickness, of the flange. Please note, the Apex Width measurement needs to be taken using only the "flat" part of the edge of the flange.



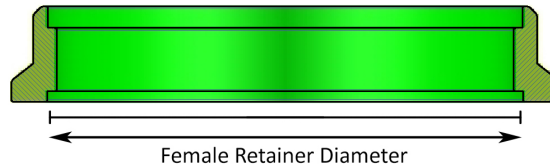
STEP 4: Flange Base Width

Using a measuring tape, ruler, or calipers, measure the flange Base Width.



STEP 5: Female Retainer Diameter and Depth

Using a measuring tape, ruler, or calipers, measure the inside diameter (ID) of the Female Retainer. If measuring a Male Flange, measure the diameter and height of the Male ring. If your V-Band Flange does not feature a Male/Female interlocking design please disregard this step. Note, a Female flange can be combined with a flat style flange if necessary.



Please consult the dimensional information provided in our V-Band Flange Dimensions tables on the following pages to see if we are able to offer a compatible V-Band Clamp or Flange.

Please note, due to the multitude of varieties of clamps and flanges that exist in the market today we are not able to cross-reference OEM part numbers, or competitor's part numbers, at this time.

Custom V-Band Clamps & Flanges

Are you looking for a custom V-Band Clamp, Flange, or full Assembly? We are more than happy to provide a competitively priced quote for custom products. Please note, custom V-Band products typically have a minimum order quantity of at least 200 pieces per size/item. We are unable to offer quotations on one-off items and small quantities at this time. For more information please contact the sales department with detailed dimensional information – sales@aceraceparts.com

V-Band Clamps and Flanges are an affordable and durable type of clamping system that is suited for high performance automotive, diesel, marine, and industrial applications. Our V-Band Clamps and Flanges are precision CNC machined and feature a 304 Stainless V-Band Clamp and 304 Stainless “Male” and “Female” interlocking style V-Band Flanges.

Our “Male/Female” interlocking style V-Band Flanges utilize a interlocking seating surface to ensure a leak-free seal without the need for a gasket and provides an easy way to align the flanges during installation. The weld side of our flanges are CNC machined with a counterbore to allow the matching tube size material to slip into the V-Band Flange and be welded in place with the proper alignment. Please consult the table below to see if we have a V-Band Clamp or Flange that will work with your application.

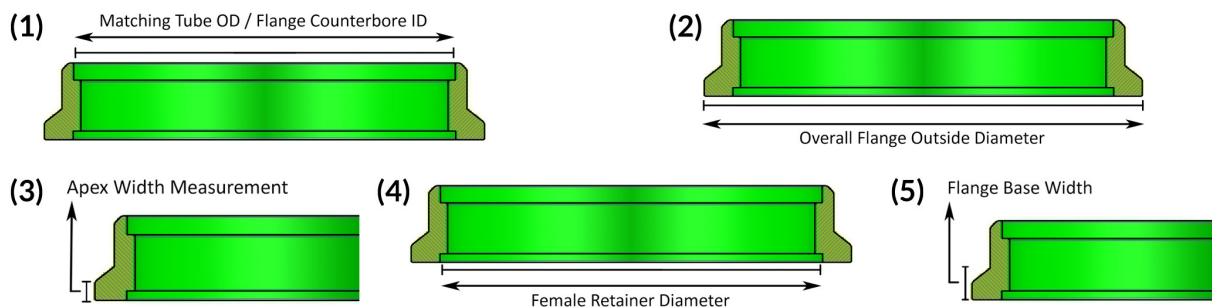
304 Stainless — “Standard” Style V-Band Clamp

Matching Tube Size ⁽¹⁾	Overall Flange OD ⁽²⁾	Flange Apex Width ⁽³⁾	Female Retainer ⁽⁴⁾	Flange Base Width ⁽⁵⁾	Assembly SKU	Male Flange SKU	Female Flange SKU	Clamp SKU
1.500" OD	2.083"	0.170"	1.539"	0.287"	22001	22033	22049	22018
1.750" OD	2.335"	0.170"	1.673"	0.287"	22003	22035	22051	22019
2.000" OD	2.559"	0.170"	2.019"	0.287"	22004	22036	22052	22020
2.250" OD	2.835"	0.170"	2.271"	0.287"	22005	22037	22053	22021
2.500" OD	3.083"	0.170"	2.539"	0.287"	22006	22038	22054	22022
3.000" OD	3.583"	0.170"	3.039"	0.287"	22008	22040	22056	22024
3.500" OD	4.080"	0.170"	3.539"	0.287"	22010	22042	22058	22026
4.000" OD	4.567"	0.170"	4.023"	0.287"	22012	22044	22060	22028
4.500" OD	5.070"	0.170"	4.507"	0.287"	22013	22045	22061	22029
5.000" OD	5.580"	0.170"	5.031"	0.287"	22014	22046	22062	22030

Mild Steel — “Standard” Style V-Band Clamp

Matching Tube Size ⁽¹⁾	Overall Flange OD ⁽²⁾	Flange Apex Width ⁽³⁾	Female Retainer ⁽⁴⁾	Flange Base Width ⁽⁵⁾	Assembly SKU	Male Flange SKU	Female Flange SKU	Clamp SKU
2.000" OD	2.559"	0.170"	2.019"	0.287"	32003	32033	32049	22020
2.250" OD	2.835"	0.170"	2.271"	0.287"	32004	32034	32050	22021
2.500" OD	3.083"	0.170"	2.539"	0.287"	32005	32035	32051	22022
3.000" OD	3.583"	0.170"	3.039"	0.287"	32007	32037	32053	22024

Measurement Location Reference:



Our Quick Release style V-Band Clamps feature a quick release latch that allows for quick assembly and disassembly in applications where frequent removal is required. The “T-Bolt” section of this style V-Band clamp is removable and replaceable, should the user need to do so.

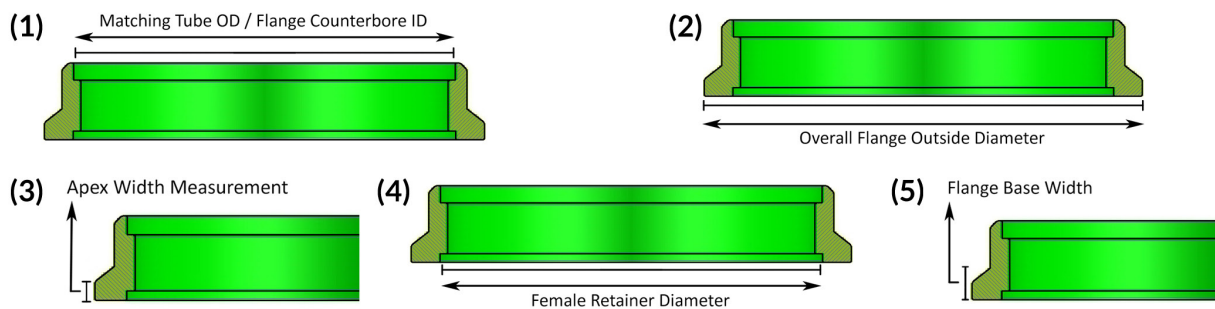
Our “Male/Female” interlocking style V-Band Flanges utilize a interlocking seating surface to ensure a leak-free seal without the need for a gasket and provides an easy way to align the flanges during installation. The weld side of our flanges are CNC machined with a counterbore to allow the matching tube size material to slip into the V-Band Flange and be welded in place with the proper alignment. Please consult the table below to see if we have a V-Band Clamp or Flange that will work with your application.

304 Stainless — “Quick Release” Style V-Band Clamp

Matching Tube Size ⁽¹⁾	Overall Flange OD ⁽²⁾	Flange Apex Width ⁽³⁾	Female Retainer ⁽⁴⁾	Flange Base Width ⁽⁵⁾	Assembly SKU	Male Flange SKU	Female Flange SKU	Clamp SKU
1.500" OD	2.178"	0.137"	1.698"	0.210"	22101	22133	22149	22117
1.750" OD	2.450"	0.137"	1.940"	0.210"	22103	22135	22151	22119
2.000" OD	2.735"	0.137"	2.177"	0.210"	22104	22136	22152	22120
2.250" OD	2.980"	0.137"	2.436"	0.210"	22105	22137	22153	22121
2.375" OD	3.090"	0.137"	2.550"	0.210"	22105-1	22137-1	22153-1	22121-1
2.500" OD	3.237"	0.137"	2.667"	0.210"	22106	22138	22154	22122
3.000" OD	3.750"	0.137"	3.176"	0.210"	22108	22140	22156	22124
3.500" OD	4.232"	0.137"	3.667"	0.210"	22110	22142	22158	22126
4.000" OD	4.750"	0.137"	4.176"	0.210"	22112	22144	22160	22128
4.500" OD	5.240"	0.137"	4.680"	0.210"	22113	22145	22161	22129
5.000" OD	5.750"	0.137"	5.176"	0.210"	22114	22146	22162	22130
6.000" OD	6.750"	0.137"	6.176"	0.210"	22116	22148	22164	22132

Compatibility Note: Our Quick Release style V-Band Clamps and Flanges feature the same flange profile and dimensions as our Aluminum V-Band Flanges. If a non-Quick Release style Clamp is desired, Clamps with SKUs starting with 120xx are a suitable option. Note, all SKUs starting with 220xx or 320xx are not compatible with our Quick Release, Aluminum, or Titanium V-Band Clamps or Flanges.

Measurement Location Reference:



The seating surface of our “Male+O-Ring/Female” interlocking style Aluminum V-Band Flanges utilize an interlocking flange design to create an air-tight, leak free seal. In extremely high temperature applications, where a Buna or FKM O-Ring will not be suitable, the interlocking style flange design allows for a leak free seal without the use of the O-Ring.

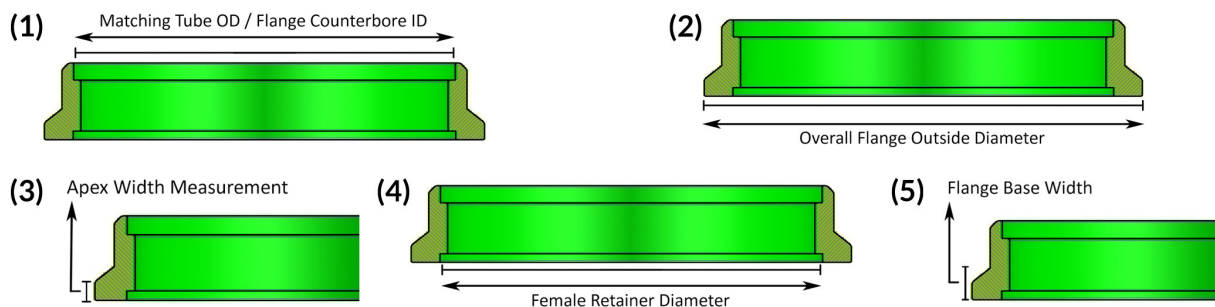
The weld side of our flanges are CNC machined with a counterbore to allow the matching tube size material to slip into the V-Band Flange and be welded in place with the proper alignment. Please consult the table below to see if we have a V-Band Clamp or Flange that will work with your application.

6061 Aluminum — “Standard” Style V-Band Clamp

Matching Tube Size ⁽¹⁾	Overall Flange OD ⁽²⁾	Flange Apex Width ⁽³⁾	Female Retainer ⁽⁴⁾	Flange Base Width ⁽⁵⁾	Assembly SKU	Male Flange SKU	Female Flange SKU	Clamp SKU
1.500" OD	2.178"	0.137"	1.698"	0.210"	12001	12051	12061	12018
1.750" OD	2.450"	0.137"	1.940"	0.210"	12002	12052	12062	12019
2.000" OD	2.735"	0.137"	2.176"	0.210"	12003	12053	12063	12020
2.250" OD	2.980"	0.137"	2.436"	0.210"	12004	12054	12064	12021
2.500" OD	3.237"	0.137"	2.667"	0.210"	12005	12055	12065	12022
3.000" OD	3.750"	0.137"	3.176"	0.210"	12007	12057	12067	12024
3.500" OD	4.232"	0.137"	3.667"	0.210"	12008	12058	12068	12025
4.000" OD	4.750"	0.137"	4.176"	0.210"	12010	12060	12070	12027
5.000" OD	5.750"	0.137"	5.176"	0.210"	12012	12073	12071	12028
6.000" OD	6.750"	0.137"	6.176"	0.210"	12013	12074	12072	12029

Compatibility Note: Our Aluminum V-Band Clamps and Flanges feature the same flange profile and dimensions as our 304 Stainless “Quick Release” Style V-Band Clamps and Flanges. If a Quick Release style Clamp is desired, Clamps with SKUs starting with 221xx are a suitable option.

Measurement Location Reference:



For applications where transitioning from one tube size to another is required our Reducing V-Band Flanges and full Assemblies eliminate the need for additional fabrication components by offering two different matching tube sizes in a single clamp.

Our “Male/Female” interlocking style V-Band Flanges utilize a interlocking seating surface to ensure a leak-free seal without the need for a gasket and provides an easy way to align the flanges during installation. The weld side of our flanges are CNC machined with a counterbore to allow the matching tube size material to slip into the V-Band Flange and be welded in place with the proper alignment. Please consult the table below to see if we have a V-Band Clamp or Flange that will work with your application.

Reducing V-Band Assemblies - “Quick Release” Clamp

Matching Tube Size “A” ⁽¹⁾	Matching Tube Size “B” ⁽¹⁾	Flange Apex Width ⁽³⁾	Female Retainer ⁽⁴⁾	Flange Base Width ⁽⁵⁾	Assembly SKU	Male Flange SKU	Female Flange SKU	Clamp SKU
2.500” OD	2.250” OD	0.137”	2.667”	0.210”	22204	22137-1	22154	22122
3.000” OD	2.500” OD	0.137”	3.176”	0.210”	22205	22138-1	22156	22124
3.500” OD	3.000” OD	0.137”	3.667”	0.210”	22206	22140-1	22158	22126
4.000” OD	3.500” OD	0.137”	4.176”	0.210”	22208	22142-1	22160	22128
4.500” OD	4.000” OD	0.137”	4.680”	0.210”	22209	22144-1	22161	22129
5.000” OD	4.500” OD	0.137”	5.176”	0.210”	22211	22145-1	22162	22130

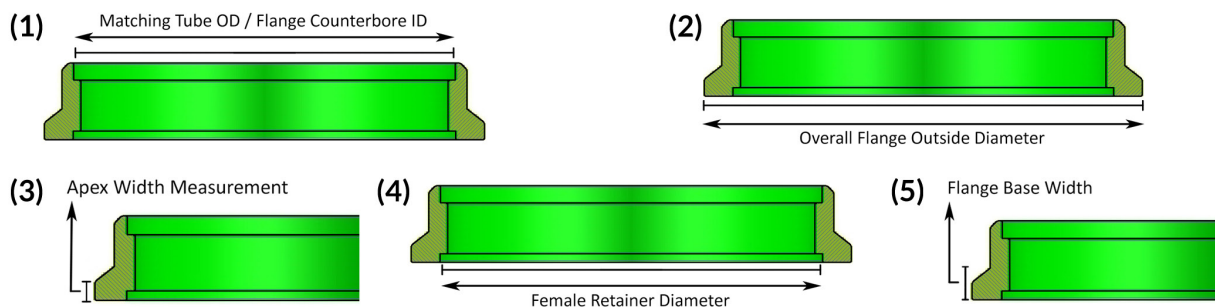
Reducing V-Band Flanges - 304 Stainless

Matching Tube Size ⁽¹⁾	Overall Flange OD ⁽²⁾	Flange Apex Width ⁽³⁾	Matching Female Retainer ⁽⁴⁾	Flange Base Width ⁽⁵⁾	Male Flange SKU	Female Flange SKU	Compatible Clamp SKU
2.500” OD	3.750”	0.137”	3.176”	0.210”	22138-1	Not available	22124
3.000” OD	4.232”	0.137”	3.667”	0.210”	22140-1	Not available	22126
3.500” OD	4.750”	0.137”	4.176”	0.210”	22142-1	Not available	22128
4.000” OD	5.240”	0.137”	4.680”	0.210”	22144-1	Not available	22129

Reducing V-Band Assembly Note: The REDUCING FLANGE, referenced as MATCHING TUBE SIZE “B”, is only available in the “MALE” Flange configuration. Please reference the “Male Flange SKU” column to find the appropriate Reducing V-Band Flange dimensions.

Reducing Flange Size Note: Individual Reducing V-Band Flange sizing is based on the “Matching Tube Size ‘B’” dimension. The “Overall Flange OD” of the Reducing V-Band Flange is based on the larger, compatible Flange and the larger of the two sizes should be referenced when ordering a compatible clamp.

Measurement Location Reference:



We offer a variety of “Combination” V-Band Assemblies to help connect dissimilar alloys in a single clamp. Compatibility note: SKUs starting with 120xx and 720xx are not compatible with SKUs starting with 320xx due to differences in flange dimension.

Our “Male/Female” interlocking style V-Band Flanges utilize a interlocking seating surface to ensure a leak-free seal without the need for a gasket and provides an easy way to align the flanges during installation. The weld side of our flanges are CNC machined with a counterbore to allow the matching tube size material to slip into the V-Band Flange and be welded in place with the proper alignment. Please consult the table below to see if we have a V-Band Clamp or Flange that will work with your application.

Mild Steel/Stainless Combination Assemblies

Matching Tube Size ⁽¹⁾	Overall Flange OD ⁽²⁾	Flange Apex Width ⁽³⁾	Female Retainer ⁽⁴⁾	Flange Base Width ⁽⁵⁾	Assembly SKU	Male Flange SKU	Female Flange SKU	Clamp SKU
2.000" OD	2.559"	0.170"	2.019"	0.287"	32003	32033	32043	22020
2.250" OD	2.835"	0.170"	2.271"	0.287"	32004	32034	32044	22021
2.500" OD	3.083"	0.170"	2.539"	0.287"	32005	32035	32045	22022
3.000" OD	3.583"	0.170"	3.039"	0.287"	32007	32037	32047	22024

Aluminum/Stainless Combination Assemblies

Matching Tube Size ⁽¹⁾	Overall Flange OD ⁽²⁾	Flange Apex Width ⁽³⁾	Female Retainer ⁽⁴⁾	Flange Base Width ⁽⁵⁾	Assembly SKU	Male Flange SKU	Female Flange SKU	Clamp SKU
2.500" OD	3.237"	0.137"	2.667"	0.210"	12005-1	12055	22154	12022
3.000" OD	3.750"	0.137"	3.176"	0.210"	12007-1	12057	22156	12024
3.500" OD	4.232"	0.137"	3.667"	0.210"	12008-1	12058	22158	12025
4.000" OD	4.750"	0.137"	4.176"	0.210"	12010-1	12060	22160	12027
5.000" OD	5.750"	0.137"	5.176"	0.210"	12012-1	12073	22162	12028
6.000" OD	6.750"	0.137"	6.176"	0.210"	12013-1	12074	22164	12029

Titanium/Stainless Combination Assemblies

Matching Tube Size ⁽¹⁾	Overall Flange OD ⁽²⁾	Flange Apex Width ⁽³⁾	Female Retainer ⁽⁴⁾	Flange Base Width ⁽⁵⁾	Assembly SKU	Male Flange SKU	Female Flange SKU	Clamp SKU
2.500" OD	3.237"	0.137"	2.667"	0.210"	72006-1	72038	22154	12022
3.000" OD	3.750"	0.137"	3.176"	0.210"	72008-1	72040	22156	12024
3.500" OD	4.232"	0.137"	3.667"	0.210"	72010-1	72042	22158	12025
4.000" OD	4.750"	0.137"	4.176"	0.210"	72012-1	72044	22160	12027

Measurement Location Reference:

