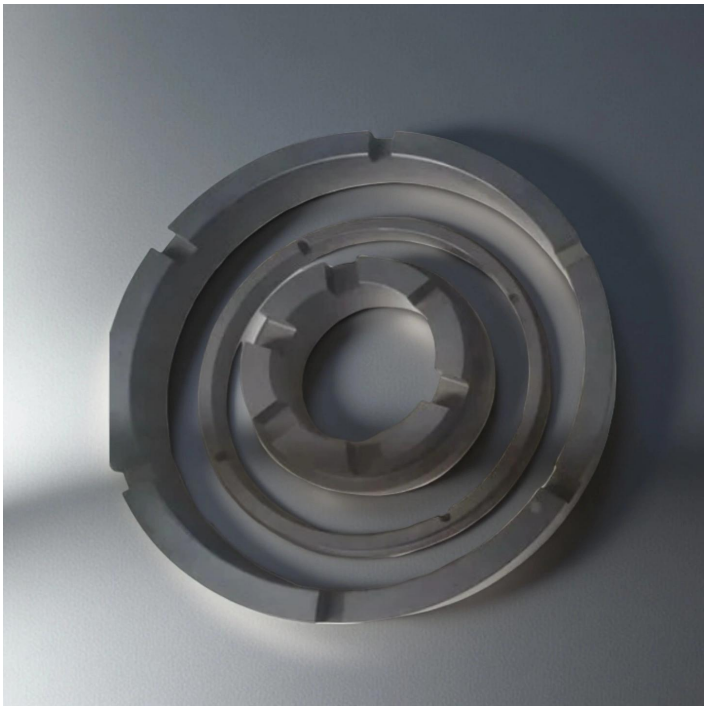
ADCERAX

ENGINEERING PRODUCT CATALOG / REVIEW COPY

Silicon Carbide Thrust Rings and Washers

Drawing-defined components for axial bearing interfaces

For pump designers, equipment OEMs and maintenance teams specifying a ring, its mating face and the operating duty.



Reference ring profiles. The image illustrates visible form only; the agreed drawing identifies the supplied component.

AT-SIC-TH1001 | Custom dimensions | RBSC or SSiC route

Match the ring geometry, working faces and material route to the assembly. Use this catalog to prepare the drawing and service information for engineering review.

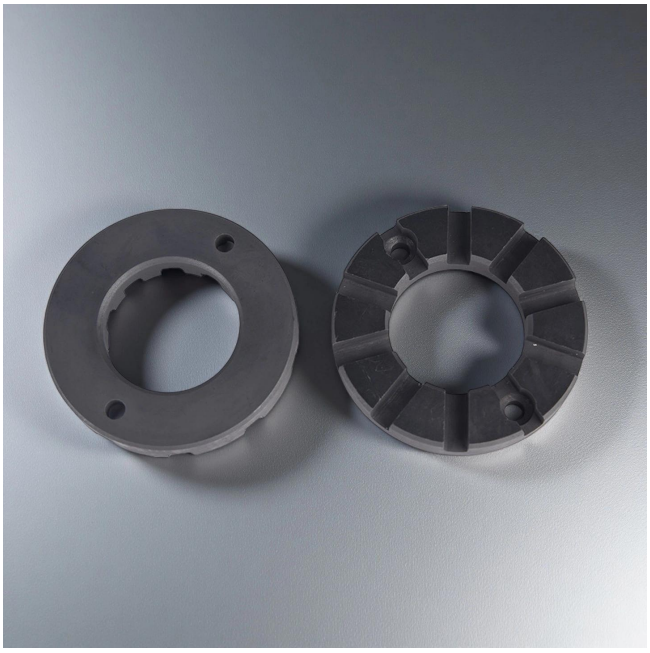
Product and duty 2 Drawing inputs 3 Material routes 4 RFQ 7

adcerax.com/product/silicon-carbide-thrust-ring/

01 PRODUCT AND APPLICATION

Identify the axial bearing interface

A thrust ring presents an annular working face to carry axial load against a mating component. It may also be specified as a thrust washer. Identify its stationary or rotating position before defining the profile and material.



Reference profiles with holes, bore notches and face grooves. The component drawing defines the supplied configuration.

Buyer task	Information that guides the selection
Pump OEM or replacement part	Assembly drawing, installation position, axial force and direction, speed, mating part and available axial space.
Solids-bearing process liquid	Particle material, size and concentration; fluid supply, deposits and the wear pattern on both faces.
Seawater or chemical process liquid	Full composition, concentration, temperature and exposure time; include surrounding wetted parts.
Vacuum or controlled environment	Pressure range, cleanliness and particle limits, cleaning process and assembly qualification requirements.

Confirm the procurement unit

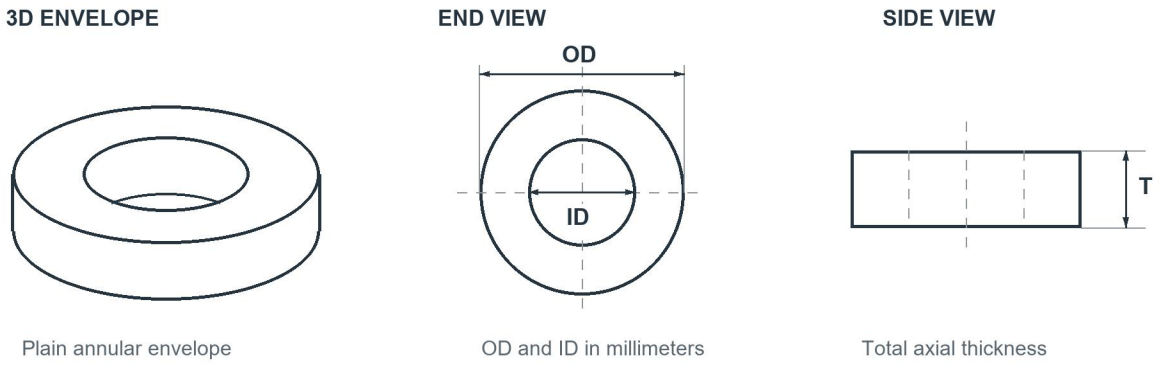
This catalog concerns the thrust ring. Specify a mating disc, radial sleeve, seal ring or complete bearing assembly separately. A seal ring controls leakage at a sealing interface; similar appearance does not establish interchangeability.

AT-SIC-TH1001 is an inquiry reference. Confirm the replacement drawing and mating arrangement before ordering; it is not an OEM compatibility cross-reference.

02 DIMENSIONS AND DRAWING

Define the custom ring

AT-SIC-TH1001 is listed as Customize for diameter and height. Quote dimensions from the component drawing; the reference does not define a fixed size or current stock.



Dimension key only | Not to scale | The component drawing defines the actual profile

Basic ring envelope only. This is a dimension key, not a product configuration or manufacturing drawing. Add all steps, grooves, holes, notches and working-face details on the component drawing.

Drawing field	Required definition
OD | outside diameter (mm)	Finished outer diameter and tolerance; state the locating or housing interface.
ID | bore diameter (mm)	Finished bore and tolerance; state the shaft or mating interface.
T | total axial thickness (mm)	Overall thickness and tolerance; define individual step heights where present.
Working face and contact band	Identify each working face and datum; dimension the inner and outer contact-band boundaries.
Grooves, holes and notches	Detail views with count, position, direction, width, depth, radii and edge treatment, as applicable.
Surface and geometric requirements	Flatness, parallelism, axial runout and Ra/Rz roughness; specify units, datums and inspection method.
Assembly and retention	Stationary/rotating identity, load direction, support face, mounting fit and anti-rotation or drive features.

For an existing part, attach marked photographs and the mating assembly drawing. Record wear separately from the required new-part dimensions. Final dimensions, tolerances and inspection criteria belong in the agreed drawing.

03 MATERIAL SELECTION

Compare RBSC and SSiC

Select the material route together with the fluid chemistry, mating part and duty cycle. RBSC is also called RBSiC or SiSiC. SSiC identifies the pressureless-sintered route in the material references below.

Material selection reference	AD-SIC-RB	AD-SIC-SS
Route	Reaction bonding / silicon infiltration	Pressureless sintering
Structure	SiC with residual free silicon	Dense sintered SiC; no silicon-infiltration phase
SiC content (wt%)	85 nominal	≥99
Residual free silicon	15 wt% nominal	No silicon-infiltration phase
Bulk density (g/cm³)	≥3.02; selection value	3.10 typical; selection value

Source basis: ADCERAX Silicon Carbide Grade Comparison Technical Data Sheet, Rev 06. Values are material-route selection references, not the bill of materials, batch inspection results or finished-ring ratings for AT-SIC-TH1001. Agree the grade, test basis and acceptance limits with the order.

Review the complete contact pair

For RBSC, include the residual silicon phase in the compatibility assessment. For SSiC, review the selected grade against the actual chemistry and interface requirements. Neither material name establishes compatibility with every acid, alkali or process medium.

Review area	Provide with the material inquiry
Chemistry and temperature	Fluid and cleaning-agent composition, concentration, operating and peak temperatures, exposure time and thermal cycles.
Mating component	Material and grade, coating if present, geometry, surface condition and whether each part rotates.
Lubrication and particles	Fluid-film or boundary conditions, supply and flushing arrangement, startup events and particle characteristics.
Load and motion	Steady and peak axial load, reversals, speed, starts/stops and required service or validation criteria.

Establish ratings at component and assembly level

Material strength, density or thermal data do not define allowable thrust load, speed, pressure-velocity limit, dry-running capability or service life. Define those limits through the actual ring, mating pair, mounting and operating qualification.

04 WORKING FACES AND SERVICE

Control the thrust interface

The working face, contact band and locating features connect the ring specification to its service duty. For a replacement, use wear photographs and operating records to identify the questions that need review.

Observed condition	Possible contributors to review	Drawing or acceptance input
Chipping or cracking	Impact, uneven assembly forces, localized contact or thermal shock.	Edge protection; support and assembly procedure; permitted edge condition and crack rejection criteria.
Grooves or uneven face wear	Particles at the contact, misalignment or disruption of the lubricating fluid film.	Contact-band geometry, fluid path, groove details, counterface alignment and wear limits.
Pitting or etching	Material-route incompatibility with process or cleaning chemistry.	Exact chemistry, concentration, temperature and exposure; inspect both the working face and bore.
Damage at locating features	Micro-movement or concentrated loading at pins, notches or keys.	Feature location, clearance, contact arrangement and acceptance criteria.
Loss of flatness or parallelism	Thermal gradients, deposits, mounting conditions or preload.	Working-face datum, flatness and parallelism requirements, plus a measured initial baseline.

Define the working face before specifying a finish

Mark the working, support and locating surfaces on the drawing. Assign roughness and geometric requirements to the correct surface, with the datum, measurement method and acceptance limits. A polished appearance does not establish flatness or roughness.

Record conditions for a useful comparison

Compare wear, face geometry, axial movement, vibration and temperature against the initial condition at the same operating duty. Define maintenance and replacement criteria in the equipment specification. A wear photograph alone does not establish the root cause.

Service observations guide engineering review; they are not promises of a particular wear rate, vibration reduction or maintenance interval.

05 ACCEPTANCE AND SUPPLY

Agree inspection and delivery requirements

ADCERAX coordinates drawing review, production and inspection with manufacturing partners against agreed specifications. Define the required evidence and acceptance criteria at the level being purchased.

Acceptance level	Define in the order
Material route	Grade and route identity, material certificate requirements, test method, sampling and limits. Material data do not substitute for finished-ring checks.
Finished ring	Drawing revision; dimensional and feature-location checks; working-face geometry and roughness; edge and visual criteria; inspection report requirements.
Mating pair	Counterface identity and geometry, contact arrangement, alignment, lubrication and mounting requirements.
Equipment duty	Load, speed, temperature and environment over the duty cycle; qualification method, measurement points and acceptance limits.

Plan assembly and maintenance

Stage	Required preparation or record
Before assembly	Check drawing revision, orientation, mating part and working-face condition. Keep faces and locating surfaces clean and protect ceramic edges.
Assembly and startup	Use the equipment procedure and specified clearance or preload. Avoid impact and uneven seating; monitor the agreed startup conditions.
Inspection and storage	Record face condition and service trends. Use a compatible cleaning process and protected storage with part identification.

Protect the working faces during supply

Specify separation between rings, face and edge protection, part or drawing identification and quantity marking. Agree individual packaging, carton or pallet requirements and any packing photographs with the quotation.

For repeat orders, cite the accepted drawing revision and material route, identify any changes, and agree the required batch records. Quantity, minimum order, lead time, inspection documents and packing are confirmed in the quotation.

06 ENGINEERING INQUIRY

Request a thrust ring quotation

Start with the information you already have. A part reference or drawing, the application and required quantity are enough to open the discussion; detailed requirements can follow during review.

Start with three items

Item	Send
Part reference	AT-SIC-TH1001, an existing drawing, marked photographs or sample details.
Use or location	Equipment application, installation position and the mating component.
Quantity	Required number of rings, delivery destination and target schedule if known.

Choose the relevant inquiry path

Replacement or repeat part. Attach the current drawing and revision, previous part or order reference, mating-assembly details and any wear photographs. State changes to material, duty or acceptance requirements.

New drawing-defined part. Attach the proposed profile and assembly, identify the working face and load direction, and describe the intended operating duty. Specify whether the mating component is customer-supplied or requested in the same quotation.

Complete the technical brief

Requirement	Information for order review
Geometry and surfaces	Dimensioned drawing with units, tolerances, datums, working-face requirements and locating details.
Material and contact pair	Requested RBSC/SSiC route or selection request; counterface material, finish and stationary/rotating arrangement.
Operating duty	Axial force and peaks, speed and cycle, process/cleaning fluid, particles, temperature and lubrication or supply conditions.
Acceptance and supply	Inspection and certificate requirements, qualification tests, packing, repeat quantity, destination and target schedule.

Send your drawing or part reference for review and quotation

info@adcerax.com

Product page and inquiry form

Reference ADC-CAT-SIC-THR-001 | Rev 01 | AT-SIC-TH1001

ADCERAX | HUNAN ATCERA CO.,LTD