ADCERAX®

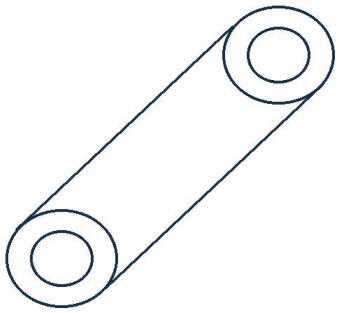
ENGINEERING PRODUCT CATALOG

Nitride Bonded Silicon Carbide Riser Tubes

Molten aluminum transfer in low pressure die casting

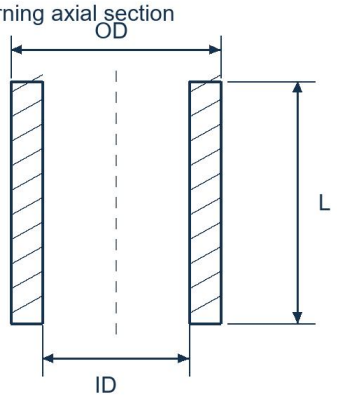
NBSiC / NSiC | Paired body sizes and drawing based interfaces

3D body envelope



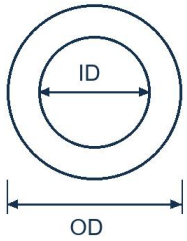
Ends and seals follow the part drawing

Governing axial section



Dimension key Not to scale L is overall length

Governing end view



Technical illustration of the tube body envelope. The approved part drawing defines actual ends, seals and support features.

Choose a paired OD and ID, then define the installed length and mating interfaces for your casting station. This catalog supports replacement, new equipment and material route review.

Find the information you need

Buyer decision	Page
Select an OD and ID pair	2
Define drawing and installation inputs	3
Read material reference values	4
Agree sample inspection and supply	5
Prepare an engineering inquiry	6

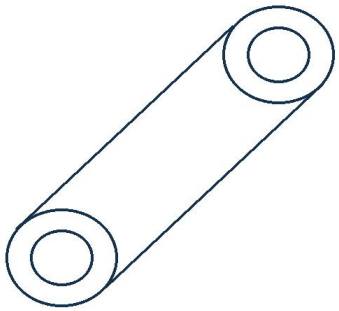
China based advanced ceramics manufacturer for custom precision ceramic components.

HUNAN ATCERA CO.,LTD | ADC-CAT-NBSIC-R21 | Rev 01

Paired body sizes

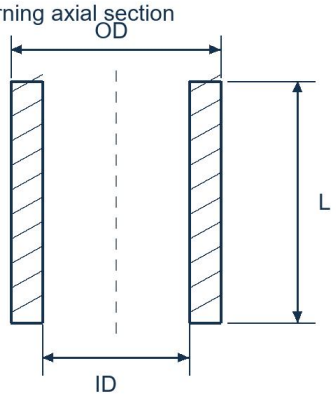
Select one listed OD and ID pair. L denotes overall length; each model has a listed 500-1100 mm length range.

3D body envelope

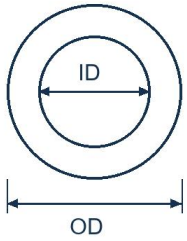


Ends and seals follow the part drawing

Governing axial section



Governing end view



Dimension key Not to scale L is overall length

Body envelope only. The dimension key does not define a shared end profile or machine interface. All dimensions below are in mm.

ADCERAX model	OD mm	ID mm	L mm
AT-SIC-SY1001	70	50	500-1100
AT-SIC-SY1002	75	54.8	500-1100
AT-SIC-SY1003	80	59.5	500-1100
AT-SIC-SY1004	82	61.8	500-1100
AT-SIC-SY1005	85	64.5	500-1100
AT-SIC-SY1006	90	69.5	500-1100
AT-SIC-SY1007	100	79.5	500-1100
AT-SIC-SY1008	115	94.4	500-1100
AT-SIC-SY1009	130	109.5	500-1100
AT-SIC-SY1010	142	121.5	500-1100
AT-SIC-SY1011	150	129	500-1100
AT-SIC-SY1012	180	159.2	500-1100
AT-SIC-SY1013	200	179	500-1100
AT-SIC-SY1014	215	194	500-1100
AT-SIC-SY1015	221	200	500-1100

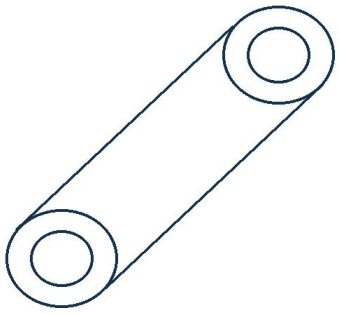
Listed catalog size options. Specify the exact required length within the range. Current availability and delivery are confirmed in the quotation.

For the selected pair, define upper and lower ends, sealing faces, supports and installed lengths on the part drawing. Model dimensions do not establish a material grade, tolerance, pressure rating or equipment compatibility.

Define the tube for the casting station

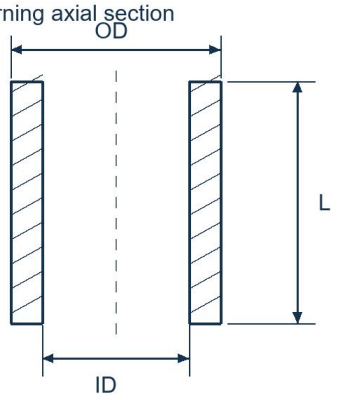
In aluminum low pressure die casting, controlled furnace pressure moves molten aluminum through the riser tube toward the mold. Bore geometry and assembly interfaces define the transfer path.

3D body envelope

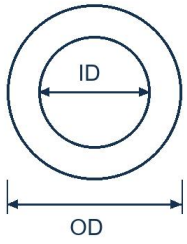


Ends and seals follow the part drawing

Governing axial section



Governing end view



Dimension key Not to scale L is overall length

OD, ID and L apply to the body envelope. Record any stepped or flanged end dimensions separately on the drawing.

Drawing or service input	What to define
OD ID and overall length L	Each body section and exact length; dimensional and geometric tolerances.
Working and immersion lengths	Working length: mounting datum to lower end. Immersion depth: molten metal level to lower end. Identify both reference positions.
Upper and lower interfaces	Connection profile, inlet and outlet, shoulders or flanges where required, sealing faces and mating components.
Support and clearance	Support contacts, alignment, clamping arrangement and furnace or mold clearance.
Material and casting cycle	Requested NBSiC grade, aluminum alloy, metal temperature, lift height, cycle frequency, preheating, flux and cleaning practice.

Match the purchase task

Replacement: attach the old drawing and photographs. Mark wear and failure locations; use intact mating faces and unworn sections to identify the intended fit.

New equipment: coordinate bore, lift height, inlet, upper connection, seal and supports with the furnace and mold layout.

Material change: compare the original material and failure history under the intended casting cycle. NBSiC is distinct from dense RBSiC or SSiC, RSiC, silicon nitride, Sialon and aluminum titanate.

Typical material reference data

AD-SIC-NB is a porous silicon carbide material with a silicon nitride bonding phase. The values below support material route comparison under the stated conditions.

Property	AD-SIC-NB reference	Status and condition
Composition	SiC / Si3N4 80 / 20 wt%	Nominal phase fractions
Bulk density	2.80 g/cm³	Typical material value
Porosity	12 vol%	Typical; agree open or total porosity and measurement method
Flexural strength	160 MPa	Typical at 20°C
Flexural strength	180 MPa	Typical at 1200°C
Young’s modulus	220 GPa	Typical at 20°C
Thermal conductivity	15 W/(m·K)	Typical at 1000°C
Initial selection temperature ceiling	1550°C	Initial material selection input

Material reference: ADCERAX Silicon Carbide Ceramic Grade Comparison Technical Data Sheet, Rev 07, AD-SIC-NB, page 3.

Connect the material to the actual tube

These data are not automatically assigned to every AT-SIC-SY model. Specify the ordered material grade together with geometry and part specific acceptance criteria.

The selection temperature ceiling is not a continuous molten aluminum service rating. Alloy, contact time, preheating, thermal gradients and casting cycles govern the component evaluation.

Porous NBSiC is not selected as a hermetic barrier. Where seal or leak performance matters, agree the finished part or assembly, test conditions and acceptance limit. Material bending data do not establish a finished tube pressure rating.

Provide the service conditions

Include the aluminum alloy, molten metal temperature, flux and cleaning chemistry, exposure time, pressure or flow history and startup or shutdown sequence relevant to your station.

Sample inspection and repeat supply

Agree the tube drawing, material and acceptance scope before evaluating a sample. Retain the accepted specification and part history for repeat orders.

Stage	Riser tube order definition
Freeze the sample	Drawing revision, selected body size, actual ends, seals, supports, NBSiC grade, critical dimensions and trial quantity.
Agree inspection	Dimensional and visual checks; surface and end face requirements; straightness and alignment criteria where specified.
Evaluate in the station	Seating, support contacts and casting cycle observations under the foundry procedure. Agree any project specific seal, leak or thermal cycle test.
Define repeat supply	Accepted drawing revision, inspection scope, quantity by installation position, identification and required documentation.
Plan transport protection	Individual tube protection and cushioned wooden crate packing, agreed for dimensions and the shipping route.

Handling and installation checks

Inspect the body, bore, ends and sealing surfaces before installation. Protect the tube from impact and point loading during unpacking and placement.

Check alignment, support locations and clearance against the approved drawing. Follow the equipment supplier and foundry procedures for dryness, preheating, startup, cooling and cleaning.

Do not install visibly cracked or chipped parts. Stop and review abnormal cracking, leakage or flow behavior under the foundry’s approved procedure.

Keep the replacement history useful

Record deposits, wear and crack locations with the installation position and operating cycle. For multi tube assemblies, link each position to its drawing revision, size pair, ends and quantity.

Inspection methods, acceptance limits, sampling, documents, MOQ and delivery schedule are agreed for the order. No fixed service life or universal compatibility is implied.

Request an engineering quotation

Start with the information available today. Cite an AT-SIC-SY model or attach a drawing, sample details or old part photographs.

Path 1 Listed catalog size

State ADC-CAT-NBSIC-R21 Rev 01, the model, requested exact length, known end and seal requirements, quantity, installation position and available alloy or temperature information.

Path 2 Drawing defined tube

Attach the drawing and revision or mark up sample photographs. Include section OD/ID, overall length L, working length with its mounting datum, immersion depth, end profiles, mating surfaces, critical tolerances and requested material.

First inquiry checklist

Information	Include what you have
Part reference	Model or drawing revision; old part photograph or sample details.
Geometry and interface	OD/ID, length, upper and lower ends, seals and mounting position.
Casting task	Equipment or furnace, aluminum alloy, metal temperature, replacement problem or new design goal.
Supply request	Sample or repeat quantity, destination and target schedule.

As the quotation develops, clarify remaining interface details, pressure or flow curves, preheating and cleaning, acceptance limits, inspection documents and packing requirements.

Send your drawing or technical brief to ADCERAX

info@adcerax.com

View the NBSiC riser tube product page

Contact ADCERAX

Tel +86-0731-84428843 | WhatsApp +86 19311583352

HUNAN ATCERA CO.,LTD

Engineering review and quotation define the final tube specification and supply conditions.