



ASTRATM
LIKE NO OTHER



CONCRETE SPACERS
2019

“

No Success or achievement in material terms is worthwhile unless it serves the needs or interests of the country and its people and is achieved by fair and honest means.

”

JRD Tata
(July 29, 1904 – November 29, 1993)

Awards and Accolades



Goa Engineering College
Ingenuity Award 2014



Construction Industry Awards 2017



Google SMB Heroes Award 2017



The Great Indian SME Yatra
Award 2018



COSIDICI National Award 2018



India SME 100 Award 2018



▲ Unit I - Goa

Unit II - Bhiwandi ▶



Astra Concrete Products, a partnership firm established in 1996, is the Largest manufacturer and exporter of pre-cast concrete products in India. Based in Goa India, Astra is reputed for manufacture and supply of high strength fiber reinforced concrete cover blocks. Astra fiber concrete cover blocks are available all major cities of Western and Southern India.

Astra Fiber Concrete Spacers are exported to New Zealand, Japan, South Korea, U.A.E, Kuwait, Qatar, Saudi Arabia, Malta, Israel, Mauritius, Sri Lanka, Vietnam and Cyprus.

Astra spacers are generally made in M60 grade concrete.

However M80 grade spacers are made only on specific order.

We have built-up enviable record of long-term relationship with satisfied clients and to most of these esteemed clients. Providing quality material to our clients is our main aim. Our expertise lies in providing high quality and application focused products serving various aspects of customer demand. A significant source of strength to our company has been strong relationship with our clients during and after the sale.

Why Concrete Spacers?

Why spacers (cover blocks) are a must in R. C.C. Structures

Spacers help maintain proper cover to the reinforcement bars. Proper cover is essential as

- It provides protection from external environment to rebars against corrosion
- It ensures adequate bond area so that stresses from concrete are transferred to steel
- It delays softening of rebars due to high temperature in case of fire



Why not Plastic Spacers?


Plastic and concrete do not bond properly. Studies in Norway show corrosion initiated at the plastic spacer

Why not site made spacers?

In accordance with BS 8110-1, concrete spacers shall not be made on the construction site

ASTRA fiber concrete spacers are superior to plastic spacers and site made concrete spacers

In accordance with BS 8110-1 concrete spacers shall not be made on the construction site



Ferry quay West Coast of Norway, built 1988 Corrosion at the location of the plastic spacer Photograph taken in 1997

Why Astra Concrete Spacers?



Rock solid strength

Made under strict quality control. Compressive strength not less than 60 MPa. Hence no deformation in heat, cold or under weight, subjected before and during concreting.

Durability

Being made of high performance concrete, ASTRA spacer provide high durability to structure with very low chloride penetration and over 100 year life as per stringent international tests.

Precision

Cast in precision dies. Ensures accurate dimensions, well under prescribed tolerances.

Easy Identification

Size of spacer is embossed on every piece (in metric as well as in imperial unit). Hence chances of error are eliminated. This feature is missing in extruded cement spacers.

Excellent Compatibility

Concrete to concrete bond is perfect. No hair cracks develop between the spacer and surrounding concrete.

Excellent Quality

Manufactured in accordance with ISO 9001:2015 (Certified by TUV SUD under registration no. 99100 11214) Conform to British standard H BS 7973-1:2001

Low Permeability

Tests on our spacers indicate low water and chloride ion penetration.

LEED Credit

Builders can include ASTRA concrete spacers under LEED for new construction under heading MR Credit 4 for recycled building materials. Projects within 800km range of Goa can claim additional credit under MR Credit 5 for regional building materials.

Single Cover Spacers



Single Cover Spacers are the most basic form of spacers in use.

Easy to install and identify.

Most economical option amongst all.

Product Code	Cover Size (mm)	Max. Permissible Rebar Dia. (mm)	Min. Breaking Load (N)	Packing per Bag (Nos)
AS15	15	16	3000	1000
AS20	20	18	3200	800
AS25	25	18	3400	700
AS30	30	30	3700	500
AS35	35	30	4000	400
AS40	40	30	4300	300
AS45	45	30	4900	250
AS50	50	40	5200	150
AS55	55	40	5600	150
AS60	60	40	6100	100
AS70	70	40	7200	100
AS75	75	40	7800	100
AS100	100	40	8400	50

Multi-Cover Spacers



Multi - Cover Spacers are widely used for infrastructure and precasting works.

Recommended for projects to control inventory.

Product Code	Cover Size (mm)	Max. Permissible Rebar Dia. (mm)	Min. Breaking Load (N)	Packing per Bag (Nos)
AS2025	20	16	3100	800
	25	16	3300	
AS3040	30	30	3800	250
	40	30	4600	
AS3550	35	25	4400	200
	40	40	4400	
	45	30	4600	
	50	40	4800	
AS5060	50	40	5500	100
	60	40	5500	

Heavy Duty Spacers



Heavy Duty Spacer are used in members with very high reinforcement load e.g. Heavy Rafts or Footings.

Ideal for high reinforcement loads due do their high breaking load rating.

Product Code	Cover Size (mm)	Max. Permissible Rebar Dia. (mm)	Min. Breaking Load (N)	Packing per Bag (Nos)
AH50	50	40	18000	50
AH60	60	40	27000	50
AH70	70	40	30000	25
AH75	75	40	34000	25
PD25*	25	NA	NA	50

*PD25 is a pedastal of 25mm to add the 25mm extra to heavy duty spacers

e.g. AH75 + PD25 = 100 mm Cover Size

AH70 + PD25 = 95 mm Cover Size etc.

Wheel Spacers



Wheel Spacers are most effective for vertical applications, such as in columns, piles and pile caps. Designed for vertical members with elements incorporated to give minimum contact with formwork.

Product Code	Cover Size (mm)	Max. Permissible Rebar Dia. (mm)	Packing per Bag (Nos)
AR20	20	10	500
AR25	25	10	200
AR30	30	10	100
AR35	35	10	100
AR40	40	12	100
AR50	50	16	50
AR60	60	12	30
AR65	65	16	30
AR75	75	12	20
AR80	80	16	15
AR100	100	16	10
AP75	75	16	15

Clip-on Spacers



Clip-on Spacers are designed to save labour of tying a spacer. Snap-on clip design ensures quick and effortless fixing of spacers.

These spacers are also used for pre-casting members with complex / challenging mould designs.

Product Code	Cover Size (mm)	Max. Permissible Rebar Dia. (mm)	Min. Breaking Load (N)	Packing per Bag (Nos)
AK20	20	12	2200	400
AK25	25	12	2500	250
AK30	30	12	3100	250
AK40	40	12	3500	200
AK50	50	12	4000	150

Distance Bars



Distance Bars are used to maintain parallel distance between large opposing formworks to obtain uniform thickness of the structural member.

Product Code	Cover Size (mm)	Packing per Bag (Nos)
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DB127	127	100
DB150	150	100
DB200	200	50
DB230	230	30
DB250	250	25
DB300	300	20
DB350	350	20
DB400	400	15
DB450	450	15

Special Spacers



SCS40

AB40

Product Code	Cover Size (mm)	Packing per Bag (Nos)
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Bar Spacers: For heavy duty use in structures like retaining walls, tunnels, cooling towers, etc.

AB40	40	40
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Composite Spacers: For use in large area precast elements e.g. Mass housing panels

SCS40	40	
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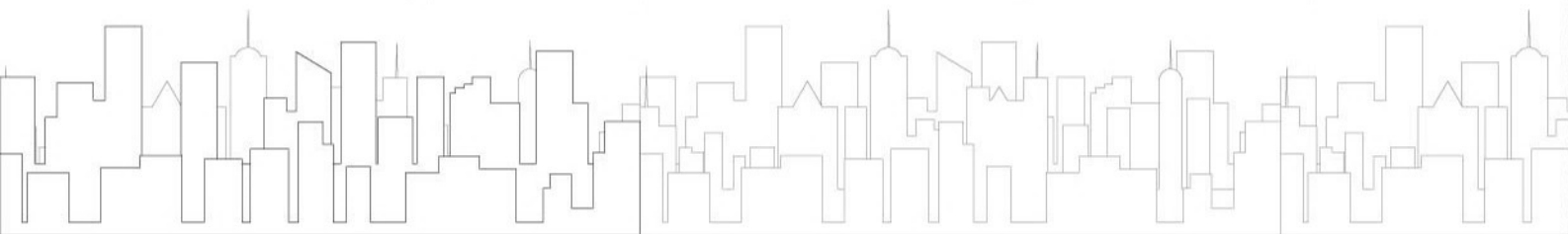
Heavy Duty Bar Spacer: For used in heavy rafts

SBS5075	50 / 75	
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Minimum Contact Spacers: For use in form finish construction

AL3035	30/35	500
AL4050	40/45/50	200
AL5560	55/60	150

ASTRA also make other application focused products like Column Corner Spacers, Concrete Wedges etc.



Rebar End Safety Cap



RF Series



RC Series

Rebar End Safety Caps are used to protect site personnel from injury due to sharp exposed rebar tips.

Made from virgin material in bright orange colour for stark visibility, ASTRA rebar end safety caps are ideal for OSHA compliance at sites.

Product Code

Cover Size (mm)

Packing per Bag (Nos)

RC0816

for 8-16mm dia. bars

200

RC1832

for 18-32mm dia. bars

100

RF2032

for 20-32mm dia. bars

200

RF3240

for 32-40mm dia. bars

50

Rebar End Spacer



Rebar End Spacer is used to provide horizontal cover at the end of rebars.

Product Code

Cover Size (mm)

Max. Permissible Rebar Dia. (mm)

Packing per Bag (Nos)

RS25

25

12

500

Data Sheet

Test Parameters

Results

Compressive Strength

Not less than M60

Water Absorption

0.45%

Rapid Chloride Penetration Test

Very Low

Sulphate Content

0.23% by mass of cement

Chloride Content

0.12 kg/cubic meter

Water Penetration

0.67mm

Chloride Migration Coefficient

$2.2 \times 10^{-12} \text{ m}^2/\text{sec}$

Alkali Silica Reactivity

Harmless

Salt Content

0.003%

Guidelines

Guidelines for numbers and maximum permissible distance between two neighbouring ASTRA fiber concrete spacers.

The following recommendations are made based on our study on various construction sites. They give guidelines for proper cover provision and help site engineers to order sufficient quantity of spacers before concreting.

Structural member	Diameter of rebar	Permissible distance	Nos. required
slab	<10mm	50 cms	4 per m ²
	>10mm	70 cms	2 per m ²
beam	10mm	50 cms	2 per meter*
	10 to 16mm	100 cms	1 per meter*
	above 16mm	125 cms	0.8 per meter*
column	12mm	25 cms	4 per meter*
	12 to 20mm	50 cms	2 per meter*
	above 20mm	80 cms	1.25 per meter*

*Multiply by number of faces of formwork.

Important Note:

For heavy multilayered reinforcement, kindly work out the number of spacers required, by using the maximum load bearing capacity of individual spacers as against the weight of reinforcement. For this purpose, please refer to the breaking loads data of every spacer given in the technical specification tables mentioned on preceding pages.

ASTRA fiber concrete spacers conform to British Standard H BS 7973-1:2001.

Manufactured under ISO 9001:2015 quality management system.

* The specifications, sizes and other details provided in this catalogue are subject to change without notice.



An ISO 9001:2015
Certified Company



Green Building Product,
Member Indian Green Building Council



No Child Labour Employed

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