

# Atlas Copco Rock Reinforcement

## MAI Systems® SDA® R 38

The **Atlas Copco MAI® Self-Drilling Anchor** is a unique anchoring system and is today's answer to the increasing demands of the tunnelling industry and ground engineering for safer and faster production.

The system provides advantages for all areas of its applications, where boreholes would require the time consuming drilling with casing systems in unconsolidated or cohesive soil.

### Features and Advantages

- Fits Atlas Copco standard Boomer, ROC and Mustang rigs.
- Particularily suitable for difficult ground conditions.
- A high rate of installation since drilling, placing and grouting can be performed in one single operation.
- Self drilling system eliminates the requirement for a cased borehole.
- Installation with simultaneous drilling and grouting possible.
- Easy installation in all directions, also upwards.
- Suitable for working in limited space, height and in areas of difficult access.
- Simple post grouting system.
- Hot-dipped galvanizing for corrosion protection

### Applications

#### Tunnelling

- Radial bolting
- Forepoling
- Face stabilization
- Portal preparation

#### Ground engineering

- Slope stabilization
- Micro injection pile
- Temporary support anchor
- Soil nailing



### SPECIFICATIONS

#### TECHNICAL DATA

Outside diameter.....	<b>R 38</b>	38 mm
Internal diameter, average.....		19 mm
External diameter, effective.....		35.7 mm
Effective cross sectional area, average.....		717 mm <sup>2</sup>
Ultimate load capacity.....		500 kN
Yield load capacity.....		400 kN
Average tensile strength, Rm.....		700 N/mm <sup>2</sup>
Average yield strength, Rp0,2.....		540 N/mm <sup>2</sup>
Weight.....		6.0 kg/m

#### GENERAL DATA

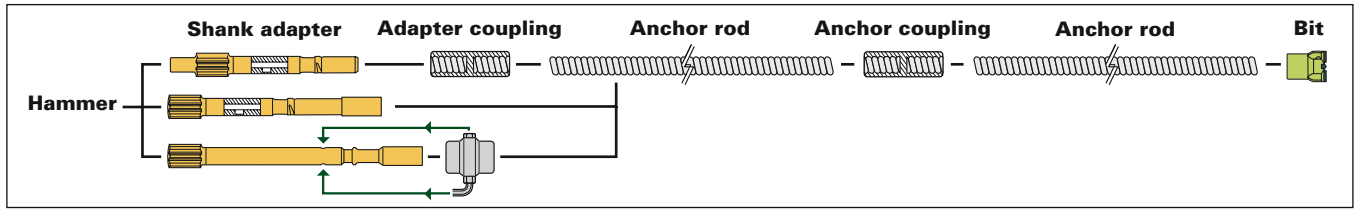
Type of steel.....	EN 10083-1
Thread type.....	R38. ISO 10208

## Atlas Copco MAI Systems® SDA®

MAI® - SDA® Anker (Self Drilling Hollow Core Anchor)

A Hollow Core Anchor system as self drilling rock bolt for tunnelling in accordance with DIN 21521

# MAI Systems<sup>®</sup> SDA<sup>®</sup> R 38



## ANCHOR ROD R38N

	Outside diameter	Average internal diameter	Effective external diameter	Aver. eff cross sectional area	Ultimate load capacity	Yield load capacity	Average tensile strength Rm	Average yield strength Rp0,2	Weight
	mm	mm	mm	mm <sup>2</sup>	kN	kN	N/mm <sup>2</sup>	N/mm <sup>2</sup>	kg/m
<b>R38N</b>	38	19	35.7	717	500	400	700	540	6.0
<b>Part number</b>									
	<b>1 meter long</b>		<b>2 meter long</b>		<b>3 meter long</b>		<b>4 meter long</b>		<b>6 meter long</b>
<b>R38N</b>	9899101164		9899100763		9899100764		9899100765		-
<b>R38N gal.</b>	9899101805		9899102665		9899102043		9899102666		-

## ANCHOR COUPLING R38N

	Diam. mm	Length mm	Part number	Kg	Type	
<b>R38N</b>	51	220	9899700034	1.70	NG Type	Machined steel coupling with patented middle stop
<b>R38N gal.</b>	51	220	9899102042	1.70	SM Type	Machined steel coupling hot dip galvanized

## NUT R38N

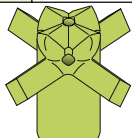
	Key size mm	Length mm	Part number	Kg	
<b>R38N</b>	50	50	9899100768	0.40	Machined steel nut
<b>R38N gal.</b>	50	50	9899101981	0.40	Machined steel nut hot dip

## ANCHOR PLATE R38N

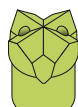
	Dimension mm	Thickness mm	Part number	Kg	Hole diam. mm	
<b>R38N</b>	200 x 200	12	9899100800	3.60	41	Cold deformed with patented geometry
<b>R38N gal.</b>	200 x 200	12	9899101980	3.60	41	Cold deformed with patented geometry, hot dip galvanized

## DRILL BIT R38N

	Description	Kg	Diam. mm	Part number	Type	
<b>R38N</b>	R38/Ø110/XX	1.40	110	9899102543	XX Type	Stepped cross bit for sand and gravel.
	R38/Ø76/EX	1.20	76	9899100782	EX Type	Hardened cross bit for loose to medium dense conditions with small boulders.
	R38/Ø90/EX	1.34	90	9899150016	EX Type	Hardened cross bit for loose to medium dense conditions with small boulders.
	R38/Ø76/EY	0.86	76	9899151017	EY Type	Hardened cross bit for loose to medium dense ground conditions.
	R38/Ø76/EYY	0.84	76	9899102623	EYY Type	TC cross bit for soft to medium rock formations.
	R38/Ø90/EYY	2.20	90	9899150041	EYY Type	TC cross bit for soft to medium rock formations.
	R38/Ø76/ES-YD	1.00	76	9899150028	ES Type	Hardened button bit for unconsolidated rock with boulders.
	R38/Ø76/ESS-YD	1.00	76	9899150029	ESS Type	Button bit with TC-inserts for medium rock formations.
R38/Ø115/ESS-D	1.30	115	9899150622	ESS Type	Button bit with TC-inserts for medium rock formations.	



XX Type



EX Type



EY Type



EYY Type



ES-F Type



ESS-D Type



ESS-F Type