

TECHNICAL CATALOGUE

Polymer Concrete
Manhole
Covers & Frames



Specification
SANS 1882:2003



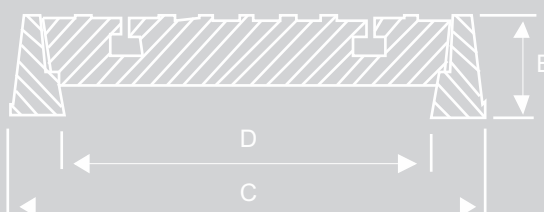
Your solution to manhole cover theft

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INTRODUCTION

A solution to the theft problem

Right across South Africa manhole covers are being stolen and sold for scrap metal. Everyday, newspapers carry articles of stolen manholes. Cars are damaged when driving into open manholes and more sadly; people get injured and die falling into manholes. The factors that lead to the theft of manholes are many. A cast iron manhole cover is quoted to fetch up to R500 at the local scrap dealer and with the rise in the price of steel rising by the day, stealing cast iron manholes are becoming more and more an opportunity for thieves to take advantage of.

Survey

In a survey carried out by a few manhole cover suppliers and users, it was found that in the four biggest municipalities in South Africa, there are a total of a shocking 61 832 manhole covers stolen. The problem is not only affecting big metropolitan cities but also the smallest of towns.

Unnecessary claims and lawsuits are being lodged against municipalities as a result of loss to property and injuries caused by open manholes.

Polymer Concrete manhole covers

There is however good news. Polymer Concrete manhole covers have no scrap value. It has been around since 1992 and has been widely used in the Western Cape by municipalities and private developers ever since. And slowly Polymer Concrete manhole covers are making inroads into the rest of South Africa and abroad due to its price competitiveness and proven track record. A Polymer Concrete manhole cover would cost the user about 40% less than a similar manhole made from cast iron. The cost advantage alone allows the user to get more manholes for their money and thereby enables a quicker solution to solving the backlog of open manholes.

Technology

Polymer Concrete was found in Germany in the early 1950's and has been widely used in many different applications. The application was tried on manhole covers and with some adjustments to the initial design, polymer concrete could be safely applied to manhole covers. Polymer Concrete manhole covers are made from a composite material that is bound together by resin and fiberglass.

SABS

The South African Bureau of Standards has formally published a standard, SANS 1882 of 2003, to recognize the need for an alternative to cast iron and concrete and to give municipalities a better choice in product to cater for their special, social and public needs. The City of Cape Town has indicated that the standard on Polymer Concrete manhole covers and frames should be made a compulsory specification so as to ensure continued excellence in the industry. According to the Department of Trade and Industry, should a regulation be introduced, such technical regulation would have to be administered by the SABS- Regulatory Division. A public private participation process would be engaged to take into account the comments of all interested and affected parties.


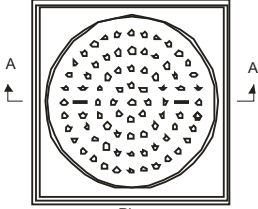
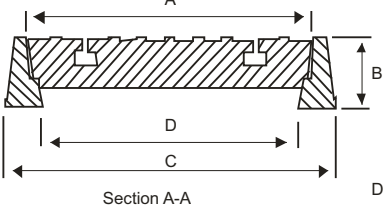

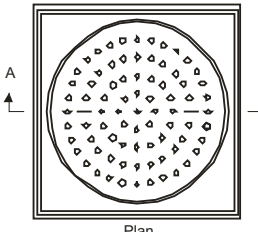
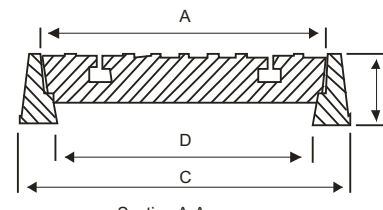

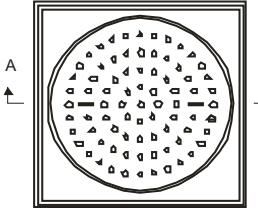
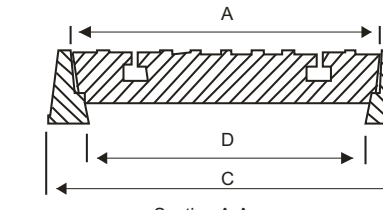

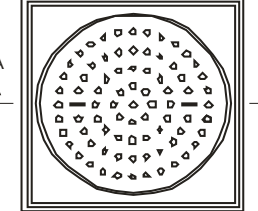
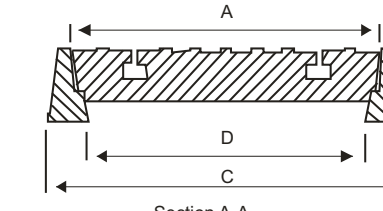

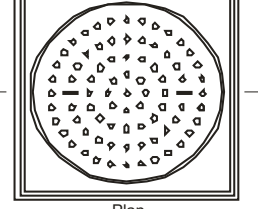
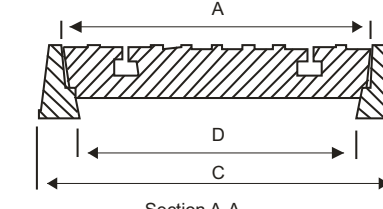
Minimum strength requirements

According to the minimum criteria set by the SABS, a Polymer Concrete manhole cover should be able to withstand a load of up to 13500 Kg. This minimum weight surpasses the maximum wheel load required and enforced by the National Department of Transport.

Users

Polymer Concrete manhole covers and frames are being used by most of the bigger municipalities, telecommunications companies and private civil engineering contractors nationwide. With variations in the specifications by municipalities, the Polymer Concrete manhole covers can easily be made to suite the customer's own specifications.

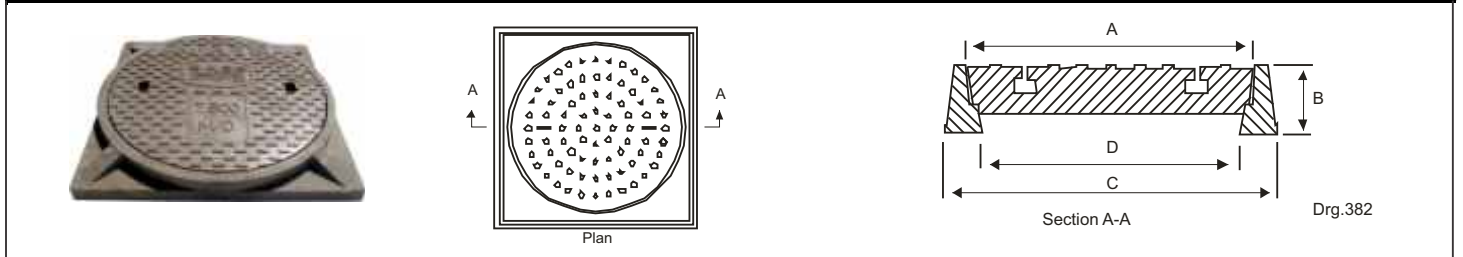
TECHNICAL CATALOGUE

Code	Size	Type	Class	Force	Kg	A	B	C	D	E	F	G	H
119172	750mm	1A	H/D	135 kn	153kg	750mm	140mm	900mm	625mm				
   <p style="text-align: right;">Drg.382</p>													
119173	750mm	1B	N/A	50 kn	153kg	750mm	140mm	900mm	625mm				
   <p style="text-align: right;">Drg.382</p>													
119105	610mm	2A	H/D	135 kn	112kg	610mm	135mm	700mm	540mm				
   <p style="text-align: right;">Drg.382</p>													
119110	610mm	2B	M/D	50kn	97kg	610mm	135mm	700mm	540mm				
   <p style="text-align: right;">Drg.382</p>													
119103	610mm	4A	M/D	40KN	46kg	610mm	60mm	700mm	540mm				
   <p style="text-align: right;">Drg.382</p>													

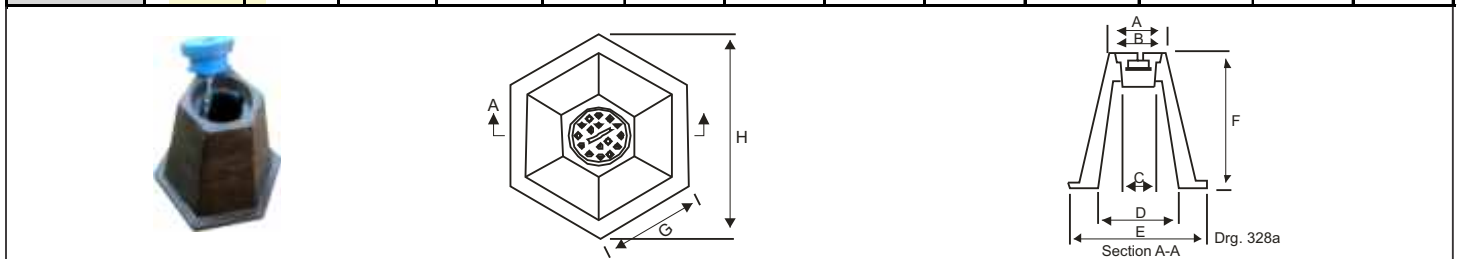
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Code	Size	Type	Class	Force	Kg	A	B	C	D	E	F	G	H
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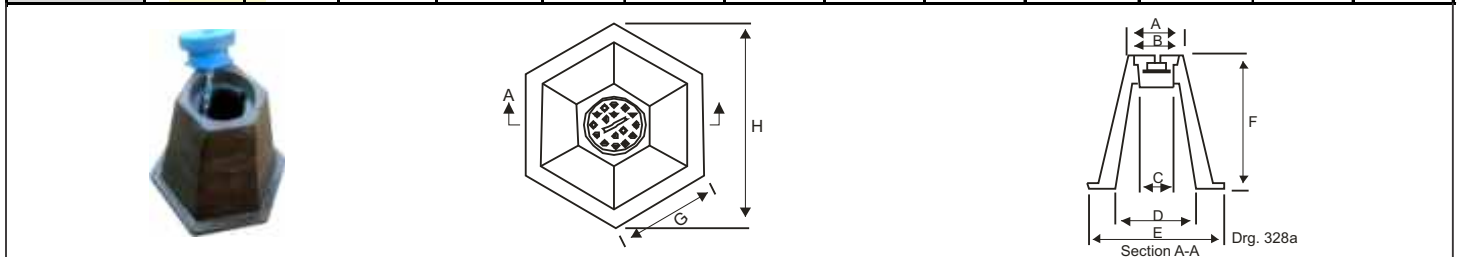
119125	545mm	Telkom	M/D	40KN	31kg	545mm	70mm	600mm	465mm				
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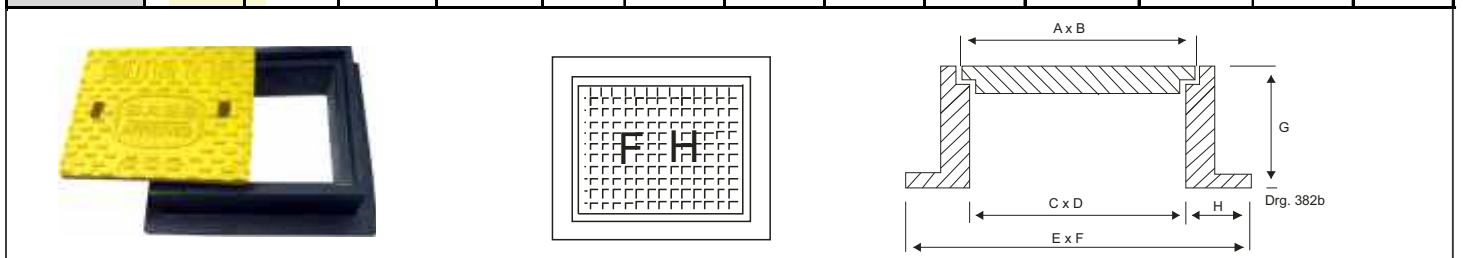
119108	140mm	3A	H/D	135kn	19kg	140mm	115mm	95mm	200mm	340mm	330mm	80mm	195mm
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119145	140mm	3B	H/D	135kn	16kg	140mm	115mm	95mm	200mm	340mm	240mm	80mm	195mm
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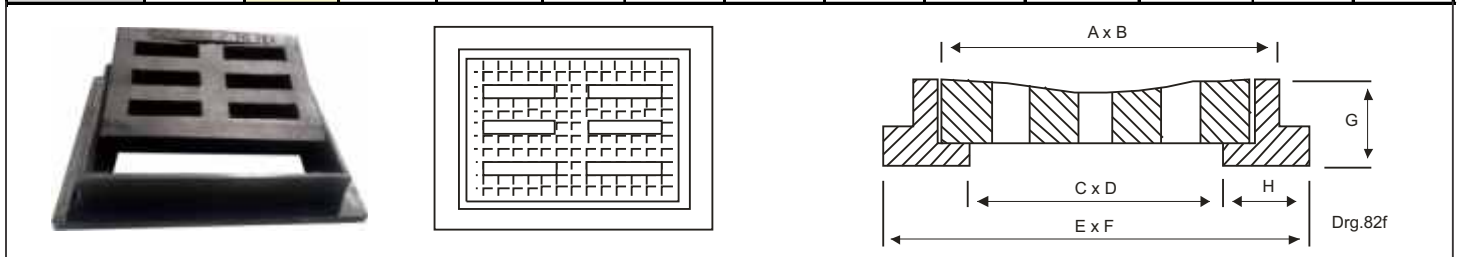
119140	330mm	5	M/D	40KN	32kg	330mm	410mm	290mm	370mm	470mm	550mm	180mm	90mm
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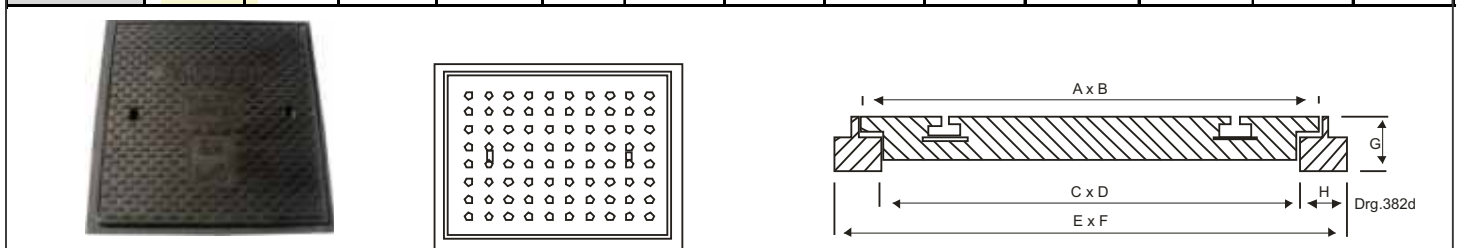
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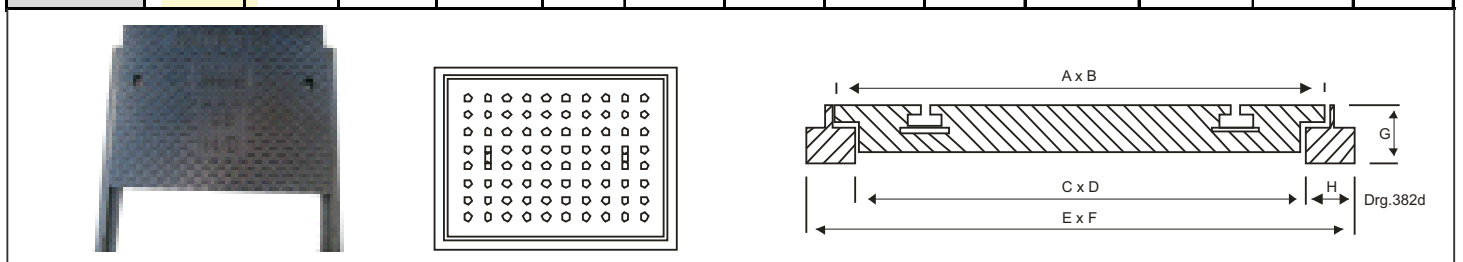
119135	400mm	Table 8	H/D	135kn	48kg	400mm	570mm	330mm	530mm	560mm	730mm	110mm	115mm
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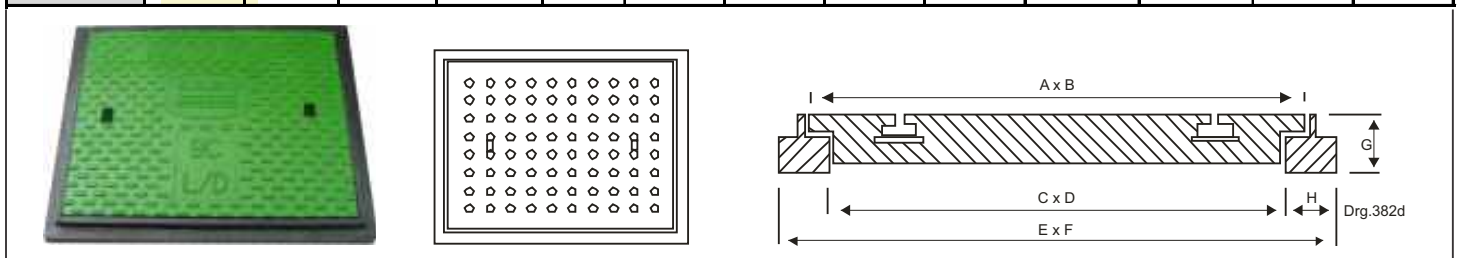
119175	660	9A	L/D	7kn	34kg	660mm	660mm	600mm	600mm	755mm	755mm	65mm	75mm
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119176	660	9B	M/D	40kn	38kg	660mm	660mm	600mm	600mm	755mm	755mm	75mm	75mm
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119104	670mm	9C	L/D	7kn	23kg	670mm	525mm	595mm	450mm	755mm	610mm	60mm	75mm
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Code	Size	Type	Class	Force	Kg	A	B	C	D	E	F	G	H
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119130	670mm	9D	M/D	40kn	39kg	670mm	530mm	595mm	450mm	760mm	620mm	80mm	75mm
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119178	930mm	9E	L/D	7kn	61kg	930mm	630mm	900mm	600mm	1040mm	735mm	50mm	75mm
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119132	300mm	300 Sq	L/D	7kn	5kg	300mm	300mm	280mm	280mm	365mm	365mm	20mm	55mm
119181	930mm	900 Sq	L/D	7kn	80kg	930mm	930mm	900mm	900mm	1040mm	1040mm	60mm	140mm

119179	450mm	14B	L/D	7kn	16kg	450mm	450mm	400mm	400mm	540mm	540mm	30mm	70mm
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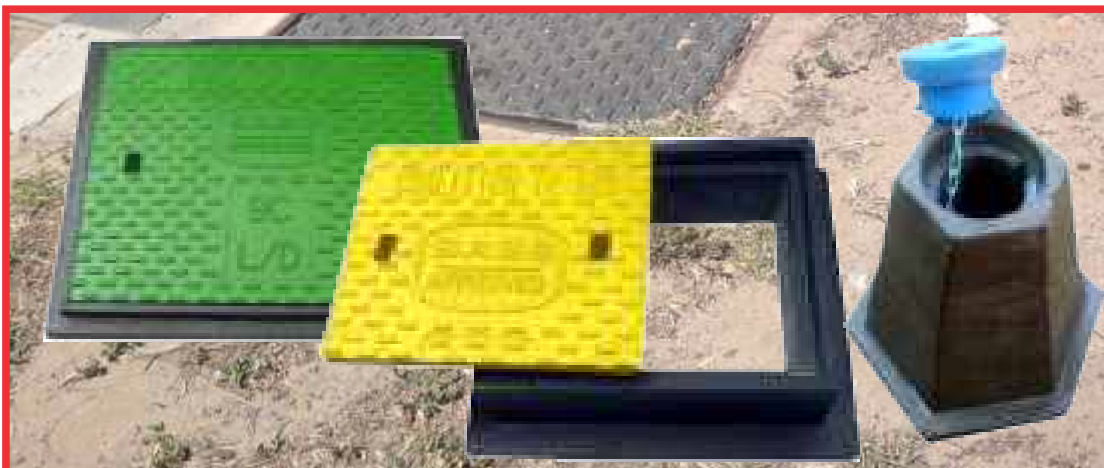
Unique Locking Mechanism

Features

- *Mild steel galvanized or stainless steel
- *Unique laser cut solid key, electroplated
- *Patented to coalition trading 960cc
- *Easy lifting: lift manhole with key
- *Cannot be opened without key
- *Key can be made to fit any unique hole. Each client has own unique key for its unique lock
- *Lock may be applied to any of our covers



Available for all Manhole Covers & Frames



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