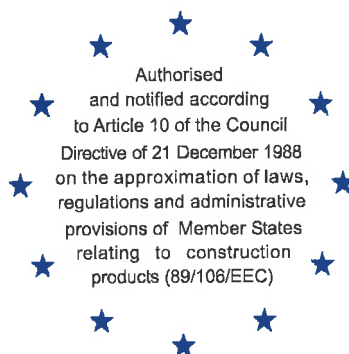


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Member of EOTA

European Technical Approval ETA 09/0337

Trade name:	OMG Flat Roof Fasteners
Holder of approval:	OMG 153 Bowles Road Agawam Massachusetts MA 01001-0508 USA
Generic type and use of construction product:	Fasteners for mechanically fastened flexible roof waterproofing systems
Valid from:	25 June 2013
to:	25 June 2018
Manufacturing plant:	OMG 153 Bowles Road Agawam Massachusetts MA 01001-0508 USA
This European Technical Approval contains:	85 pages including 75 Annexes which form an integral part of the document
This European Technical Approval replaces:	The version of ETA 09/0337 with validity from 14 Jan 2011 to 11 November 2014.



European Organisation for Technical Approvals

I LEGAL BASIS AND GENERAL CONDITIONS

- 1** This European Technical Approval is issued by FM Approvals Limited in accordance with:
 - Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of Member States relating to construction products¹, modified by the Council Directive 93/68/EEC² and Regulation (EC) N° 1882/2003 of the European Parliament and of the Council³
 - Common Procedural Rules for Requesting, Preparing and the Granting of European technical approvals set out in the Annex of Commission Decision 94/23/EC⁴.
 - ETA Guideline No. 006 edition March 2000, as amended April 2007, for systems of mechanically fastened flexible roof waterproofing membranes, paragraph 2.2 iii.
- 2** FM Approvals Limited is authorised to check whether the provisions of this European Technical Approval are met. Checking may take place in the manufacturing plant(s). Nevertheless, the responsibility for the conformity of the products to the European Technical Approval and for their fitness for the intended use remains with the holder of the European Technical Approval.
- 3** This European Technical Approval is not to be transferred to manufacturers or agents of manufacturers other than those indicated on page 1 of this European Technical Approval.
- 4** This European Technical Approval may be withdrawn by FM Approvals Limited in particular pursuant to information by the Commission according to Article 5(1) of Council Directive 89/106/EEC.
- 5** Reproduction of this European Technical Approval including transmission by electronic means shall be in full. However, partial reproduction can be made with the written consent of FM Approvals Limited. In this case partial reproduction has to be designated as such. Texts and drawings of advertising brochures shall not contradict or misuse the European Technical Approval.
- 6** The European Technical Approval is issued by the approval body in its official language. This version corresponds fully to the version circulated in EOTA. Translations into other languages have to be designated as such.

¹ Official Journal of the European Communities N° L40, 11.2.1989, p. 12

² Official Journal of the European Communities N° L 220, 30.08.1993, p. 1

³ Official Journal of the European Union N° L 284, 31.10.2003, p. 25

⁴ Official Journal of the European Communities N° L17, 20.1.1994, p. 34

II SPECIFIC CONDITIONS OF THE EUROPEAN TECHNICAL APPROVAL

1 Definition of the fasteners and intended use

1.1 Definition of the construction product

The construction products are mechanical fasteners. The fasteners comprise a screw or nail made of coated carbon steel and a linear fastener or washer. Washers are made of coated carbon steel or polymeric material whereas the linear fastener is made from polymeric material.

The fasteners are introduced to the market separately from the other components of roof waterproofing membrane systems, and this ETA covers only the performance characteristics of the fasteners in isolation. In order to use the fasteners within systems of mechanically fastened flexible roof waterproofing membranes a separate ETA according to ETAG 006 for the full roof waterproofing system is necessary.

1.2 Intended use

The fasteners are intended to be used for the fastening of flexible roof waterproofing membranes or insulation board according to ETAG 006. The possible substrates for the fasteners covered by this ETA are profiled steel, concrete or plywood decks.

The provisions made in this European Technical Approval are based on an assumed intended working life of 10 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

2 Characteristics of the product and methods of verification

2.1 Characteristics of the Products

The fasteners shall correspond to the information given in Annexes 1 to 75. All material properties, dimensions and tolerances not indicated in the Annexes shall be in accordance with the technical information held by FM Approvals in support of this European Technical Approval. All relevant information is available to the approved body involved in attestation of conformity procedures.

2.2 Mechanical resistance and stability (ER1)

Not applicable.

2.3 Safety in case of fire (ER2)

No performance determined. The fire performance of roof waterproofing kits is determined as part of a separate ETA for the complete roof systems.

2.4 Hygiene, health and environment (ER3)

According to the manufacturer's declaration the screws and washers with corrosion protection contains no chromium 6 compounds. Consequently the products are assessed to not contain any dangerous substances according to the EU database⁵.

⁵ In addition to the specific clauses relating to dangerous substances contained in this European Technical Approval, there may be other requirements applicable to the product falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the 3048605

2.5 Safety in use (ER4)

The characteristic values and mean values of the axial load resistance of the fasteners are given in Annexes 41 and 42 respectively. The values were determined by axial loading tests conducted in accordance with ETAG 006.

The fasteners were assessed by FM Approvals Limited to meet the requirements of ETAG 006 relating to “unwinding”. The assessment was made on the basis of successful history of use on site and the SPF fastener satisfying the unwinding testing using 1.25mm steel substrate.

2.6 Protection against noise (ER5)

Not applicable

2.7 Energy economy and heat retention (ER6)

Not applicable

2.8 Aspects of durability

The durability requirements of ETAG 006 (ie resistance to corrosion of metallic fasteners, impact resistance and brittleness of plastic fasteners before and after heat ageing, and requirements of results of Charpy tests for plastic materials before and after heat ageing) are satisfied for the coated carbon steel and plastic components of the fasteners.

All coated carbon steel components successfully resisted 15 cycles of the test procedure described in ETAG 006 (Kesternich test) and did not show more than 15% surface corrosion.

The results of the tests to check the impact resistance and brittleness of the plastic components gave a drop height of $\geq 1.0\text{m}$ before and after heat ageing of these components. Furthermore the results of the corresponding Charpy tests to the method of ISO 179-1 after heat ageing did not show any significant decline compared to the results before heat ageing.

2.9 Identification

All packaging of fasteners is to be marked with product type and time of production.

3 Evaluation and Attestation of Conformity and CE marking**3.1 System of Attestation of Conformity**

According to Decision 99/92/EC by the European Commission the system 2+ of attestation of conformity applies.

This system of attestation of conformity is defined as follows:

- (a) Tasks of the manufacturer:
 - Factory production control;
 - Initial type testing of the product;
 - Testing of samples taken at the factory in accordance with a prescribed test plan
- (b) Tasks of the notified body: certification of factory production control on the basis of:
 - Initial inspection of the factory and factory production control (FPC);

provisions of the EU Construction Products Directive, these requirements need also to be complied with, when and where they apply.

- Continuous surveillance, assessment and approval of factory production control.

3.2 Responsibilities

3.2.1 Tasks for the manufacturer

Factory production control

The manufacturer shall exercise permanent internal control of the production. All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic manner in the form of written policies, procedures and a control plan, including records of results performed. This production control system shall ensure that the products are in conformity with this European technical approval. The factory production control includes checking of incoming materials and process controls.

The manufacturer shall use raw materials or components that comply with the specifications in the control plan. The results of the factory production control shall be recorded and evaluated. The records shall include at least the following information:

- Name of the product and the raw materials
- Type of inspection or control
- Date of manufacture, batch number, and date of inspection or control of the product
- Results of inspections or controls and, as far as applicable, comparison with requirements
- Signature of the person responsible for factory production control

The records shall be kept for at least five years. Further information concerning tests, their frequency and tolerances, is included in the quality control plan which is deposited at FM Approvals Limited and forms part of the technical documentation of this European Technical Approval. The quality control plan is a confidential part of this ETA and is only made available to the Notified Body involved in Attestation of Conformity procedures.

Initial type-testing of the product

Approval tests have been conducted by FM Approvals Limited in accordance with ETAG 006. FM Approvals Limited has assessed the results of these tests in accordance with ETAG 006 ch. 6, and the product characteristics determined by the initial test programme have been found acceptable to serve as initial type-testing. After changing the production process or starting the production in another manufacturing plant the initial type-testing shall be repeated.

Other tasks of the manufacturer

The manufacturer shall, on the basis of a contract, involve a body/bodies which is/are notified for the tasks referred to in section 3.1 in the field of the product in order to undertake the actions laid down in section 3.2.2. For this purpose, the quality control plan referred to in section 3.2.2 shall be handed over by the manufacturer to the notified body/bodies involved. The manufacturer shall make a declaration of conformity, stating that the product is in conformity with the provisions of this ETA.

3.2.2 Tasks for the Notified Body

Initial inspection of factory and factory production control

FM Approvals Limited has performed initial factory inspection as an approval body, and ascertains that the manufacturer has acceptable premises, technical equipment, qualified personnel and a factory production control system with a control plan in accordance with the

provisions in ETA Guideline 006 and in this ETA. This inspection may serve as initial factory inspection.

Continuous surveillance, assessment and approval of factory production control

The notified body concerned shall perform continuous surveillance and assessment of the manufacturer's factory production control, and confirm that the controls are made in conformity with the established control plans approved by FM Approvals Limited. The Notified Body shall prepare and maintain a written report of all surveillance activities and clearly state results obtained and conclusions drawn.

The notified body shall issue an EC certificate of conformity of the factory production control stating the conformity with the provisions of this European technical approval.

In cases where the provisions of the European technical approval and its Control Plan are no longer fulfilled the certification body shall withdraw the certificate of conformity and inform FM Approvals Limited without delay.

3.3 CE marking

The CE mark shall be affixed on each packaging of fasteners. The symbol "CE" shall be followed by the identification number of the relevant Notified Body and be accompanied by the following additional information:

- name and address of the producer (legal entity responsible for the manufacture)
- last two digits of the year in which the CE marking was affixed
- number of the EC certificate for the factory production control
- number of the European Technical Approval
- name of the product

4 Assumptions under which the fitness of the products for the intended use was favourably assessed

4.1 Manufacturing

The European technical approval is issued for the product on the basis of agreed data/information, deposited with FM Approvals Limited, which identifies the products that have been assessed and judged to satisfy ETAG 006 requirements. Changes to the products or production process, which could result in this deposited data/information being incorrect, should be notified to FM Approvals Limited before the changes are introduced. FM Approvals will decide whether or not such changes affect the ETA and consequently the validity of the CE marking on the basis of the ETA, and if so whether further assessment or alterations to the ETA shall be necessary.

4.2 Installation and design

General

The fasteners must be installed according to the manufacturer's instructions. It is the manufacturer's responsibility to provide correct information about the application of the products to the users.

In order to use the fasteners for systems of mechanically fastened flexible roof waterproofing membranes a valid ETA according to ETAG 006 is required for the entire roof system.

If there is doubt about the suitability of the substrate, e.g. on a construction site, a pullout test on site should be performed to verify the performance of the fastener (see ETAG 006 Annex C). Furthermore, care should be taken during design to ensure that bimetallic corrosion between metal parts, especially between substrate and screw, does not occur. Likewise, use of insulation materials containing substances which can affect the performance of the fasteners must be avoided.

Fastening in plywood

Minimum thickness for plywood (exterior grade to EN 636) based substrate is 19 mm. All fasteners must penetrate the underside of the plywood deck a minimum of 12.5mm. For plywood deck applications a site pull out test is recommended.

Fastening in concrete

For the #14 Heavy Duty screw pre-drill a hole of diameter 4.75mm. For the #15 Roofgrip screw and the CD-10 nail pre-drill a hole of diameter 5.55mm. In all cases, the pre-drilled hole shall be 38 mm in depth. The minimum anchorage depth of any fastener into the hole shall be 25 mm. Concrete to be at least 100mm thick and minimum compression strength class C20/25 according to EN 206-1.

Fastening in steel deck

Load bearing decks made of profiled steel sheets shall have a minimum thickness of 0.7 mm. and shall be minimum specification S280GD to EN 10326.

5 Indications to the manufacturer

The fasteners shall be handled and stored with care and be protected from accidental damage. Polymeric components shall be stored in normal climatic conditions in their original packaging until required for use. It is the responsibility of the manufacturer to ensure that with each delivery proper information for the use of the fasteners is available to all those concerned, including general guidance on the basis of this ETA. All installation instructions should be clearly shown on the fastener packaging and/or on an enclosed instruction sheet.

On behalf of
FM Approvals Limited
Date 25 June 2013

SIGNED BY
C T Hill
Senior Engineer



SIGNED BY
M Gower
Certification Manager



Digitally signed by Mox Gower
DN: cn=Mox Gower, o=FM Approvals, ou
emsa@mox.gower@macarova.com
c=GB
Date: 2013.06.25 15:16:47 +01'00'

Table 1**List of OMG Components**

OMG Fastener name	Substrates	Function	Material
#12 Standard Roofgrip	Plywood steel	Fastener screw	Coated carbon steel (red or black)
#12 Standard Roofgrip Drill Point	Plywood steel	Fastener screw	Coated carbon steel (red or black)
#14 Heavy Duty	Plywood Steel concrete	Fastener screw	Coated carbon steel (red or black)
#15 Roofgrip	Plywood Steel concrete	Fastener screw	Coated carbon steel (red or black)
XHD	Plywood steel	Fastener screw	Coated carbon steel (red or black)
Super XHD	Plywood steel	Fastener screw	Coated carbon steel (red or black)
Maxload	Plywood steel	Fastener screw	Coated carbon steel (red or black)
CD-10	Concrete	Concrete nail	Coated carbon steel (red or black)
SPF	Plywood Steel	Fastener screw	Coated carbon steel (red or black)
RetroDriller	Steel	Fastener screw	Coated carbon steel (red or black)
3" Ribbed galvalume insulation plate	-	Washer	Galvalume coated steel
AccuTrac plate	-	Washer	Galvalume coated steel
XHD barbed stress plate	-	Washer	Galvalume coated steel
2 3/8" Eyehook seam plate	-	Washer	Galvalume coated steel
2 3/4" Eyehook seam plate	-	Washer	Galvalume coated steel
Maxload seam plate	-	Washer	Galvalume coated steel
3/4" Polymer batten strip	-	Linear Fastener	Polymeric
3" Plastic insulation plate	-	Washer	Polymeric
2" Metal seam plate		Washer	Galvalume coated steel
2" Metal barbed seam plate		Washer	Galvalume coated steel
2" Plastic barbed seam plate		Washer	Polymeric
RhinoBond Plate*		Washer	Galvalume coated steel

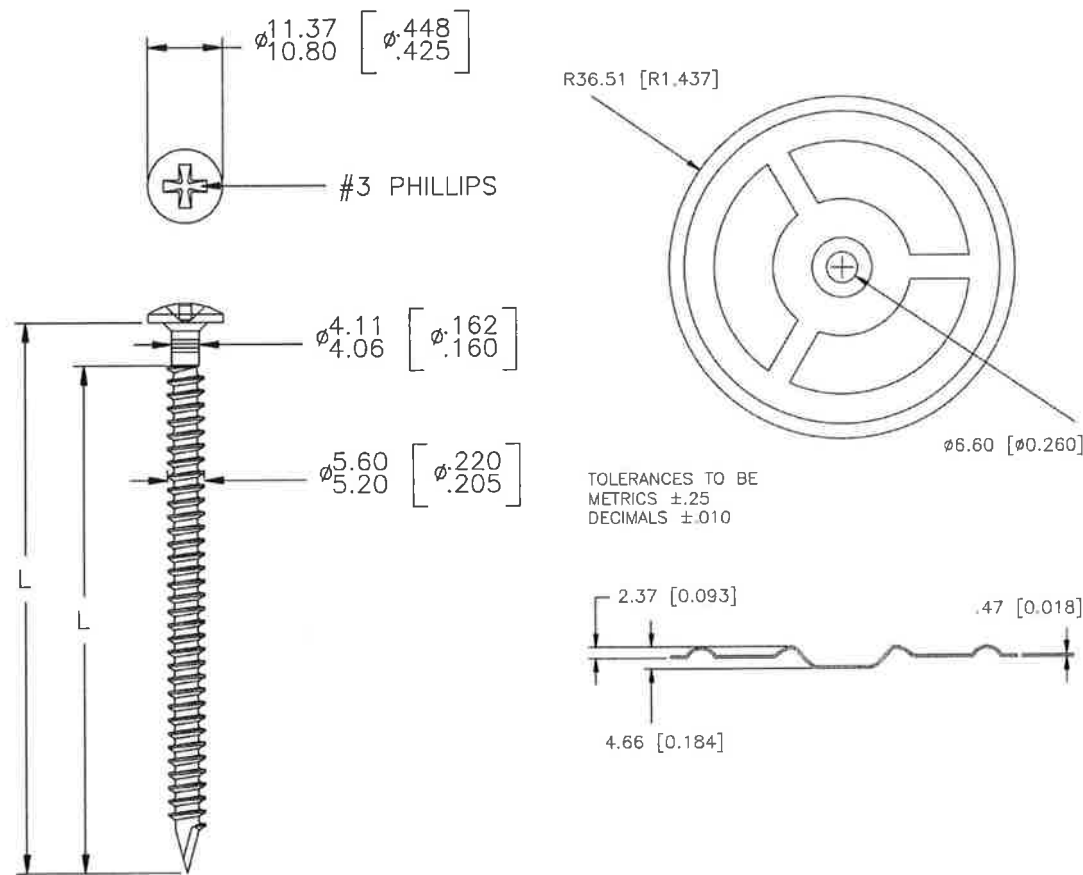
*Assessed as a conventional mechanical fastening system only

Note:

In the following Annexes 1 to 73 key dimensions are given both in metric (mm) and imperial (inches) units. Metric units are indicated first followed by imperial units in square brackets.

OMG #12 Standard Roofgrip

OMG 3” Ribbed Galvalume Insulation Plate



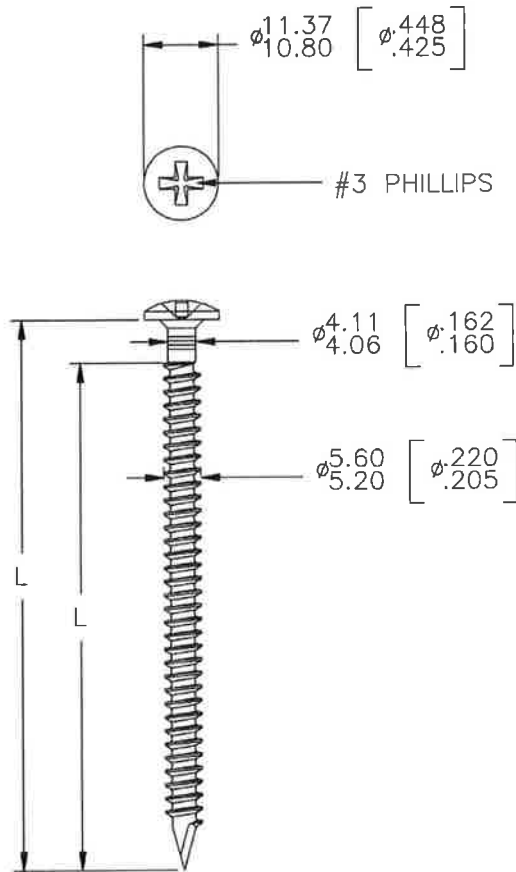
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Annex 1

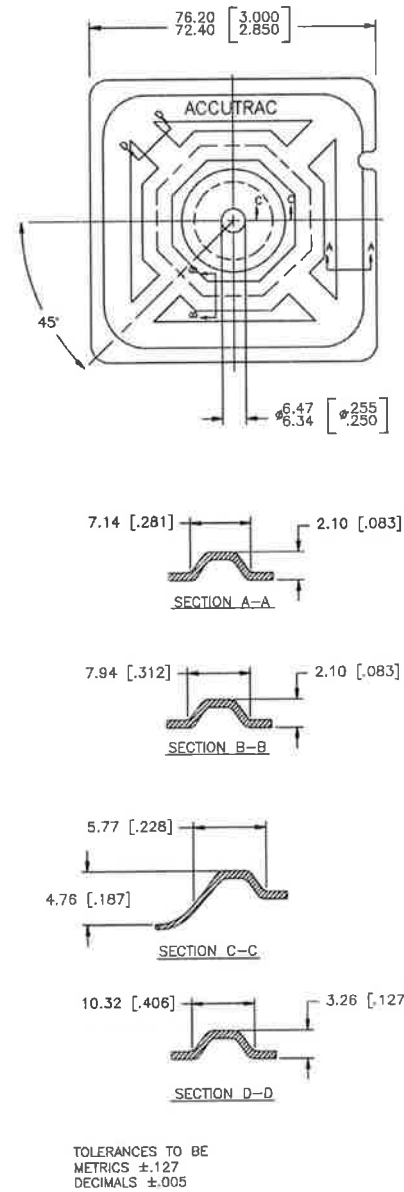
Of the European Technical Approval
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OMG Flat Roof Fasteners

OMG #12 Standard Roofgrip



OMG AccuTrac plate

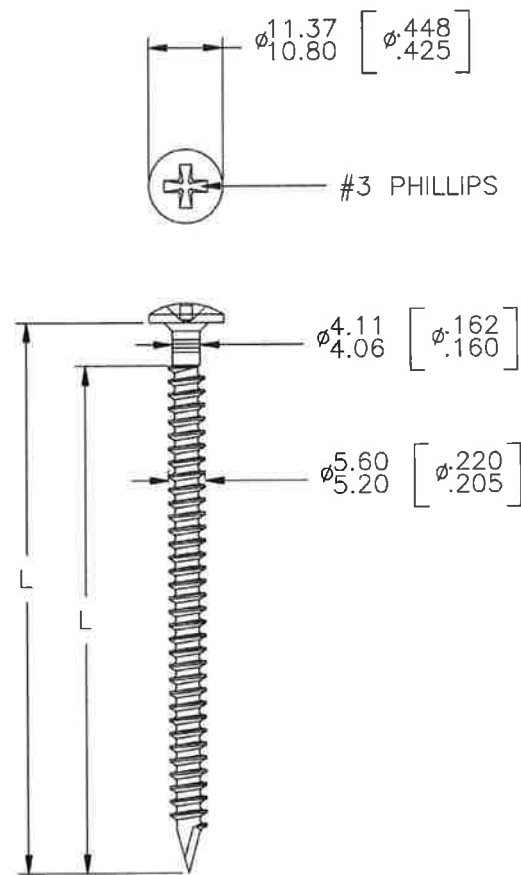


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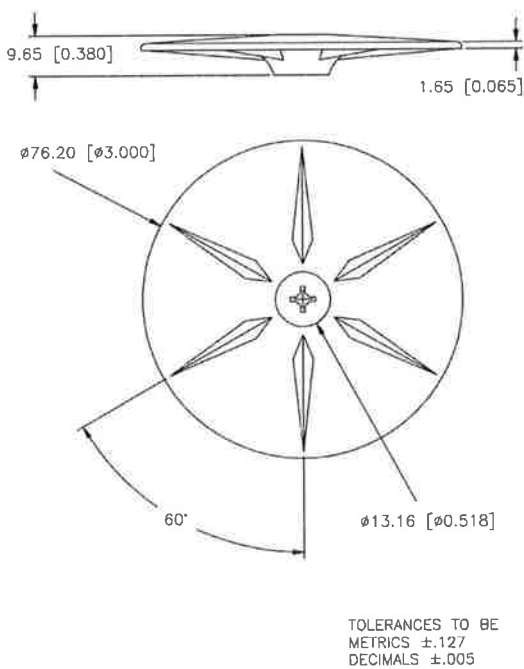
Annex 2
Of the European Technical Approval
ETA – 09/0337

OMG Flat Roof Fasteners

OMG #12 Standard Roofgrip



OMG 3" Plastic Insulation Plate



Combination 3

Annex 3

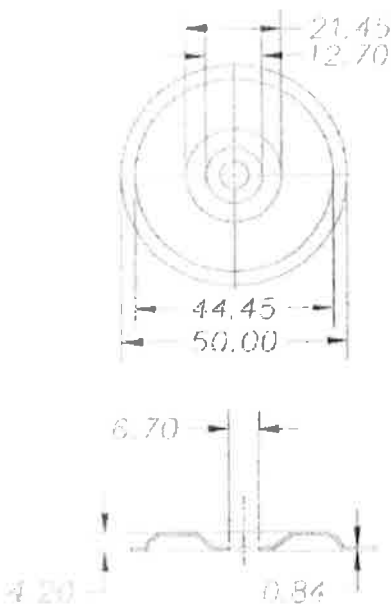
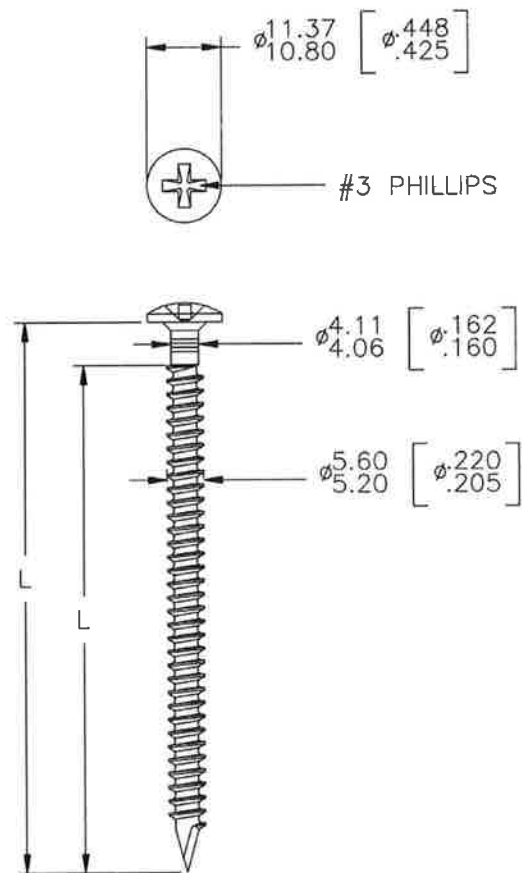
Of the European Technical Approval

OMG Flat Roof Fasteners

ETA – 09/0337

OMG #12 Standard Roofgrip

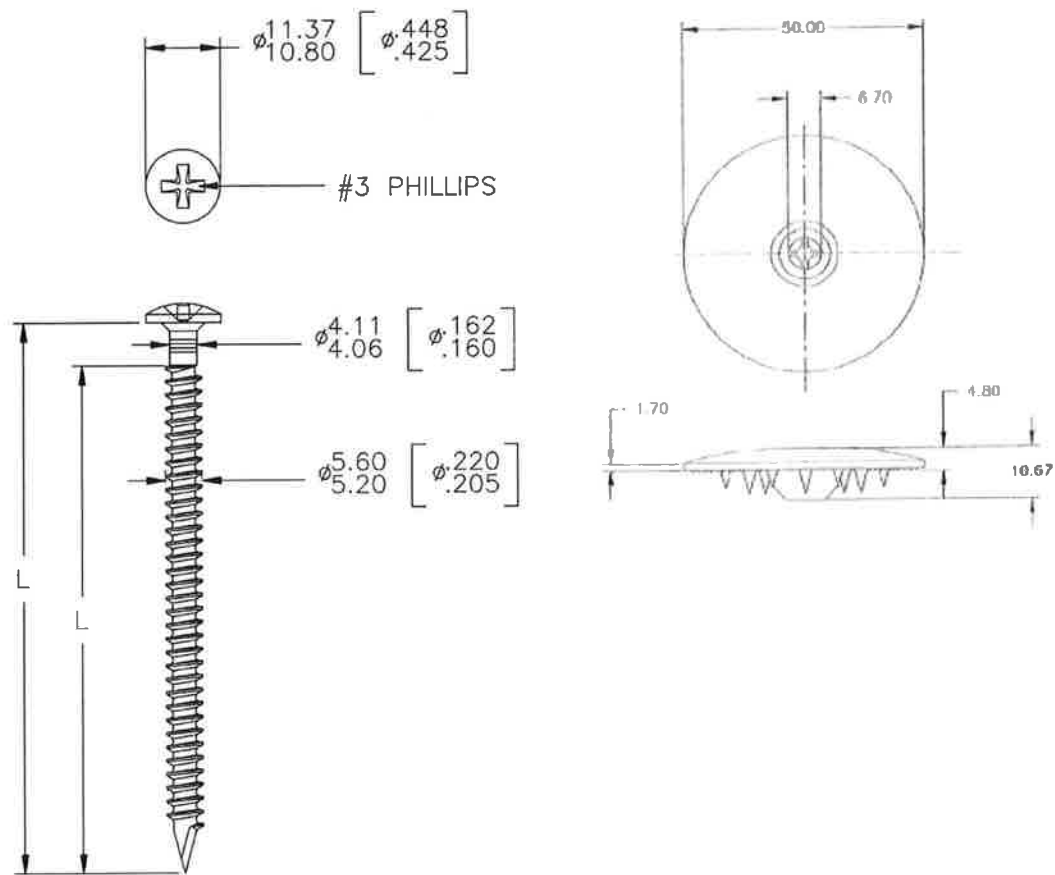
OMG 2” Metal Seam Plate



Combination 4	Annex 4
	Of the European Technical Approval
OMG Flat Roof Fasteners	ETA – 09/0337

OMG #12 Standard Roofgrip

OMG 2” Plastic Barbed Seam Plate



Combination 5

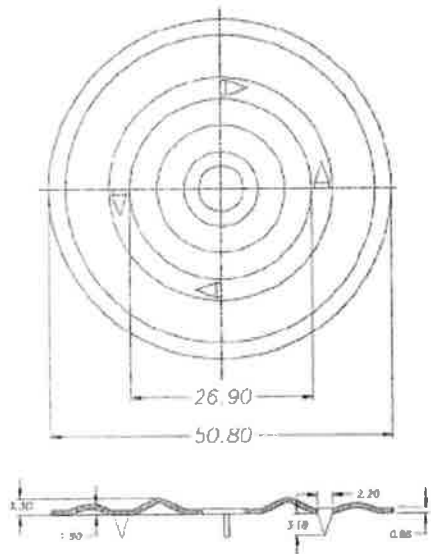
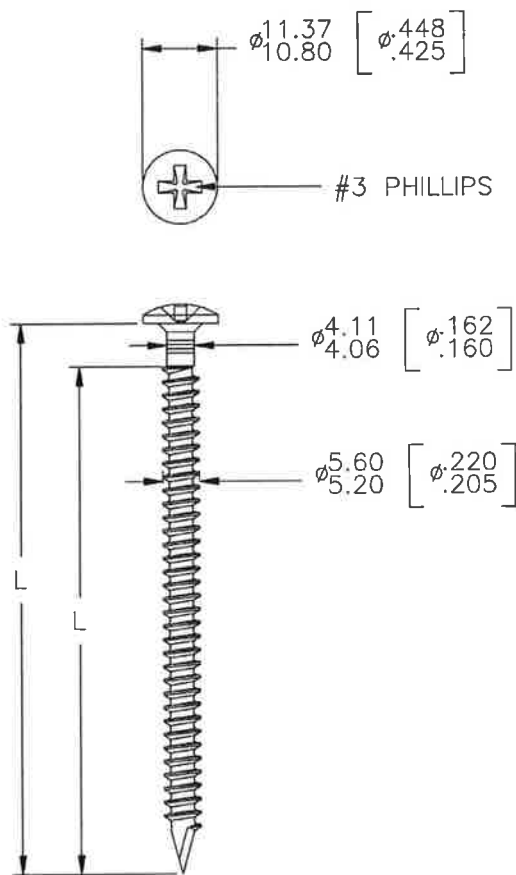
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Of the European Technical Approval
ETA – 09/0337

OMG Flat Roof Fasteners

OMG #12 Standard Roofgrip

OMG 2” Metal Barbed Seam Plate



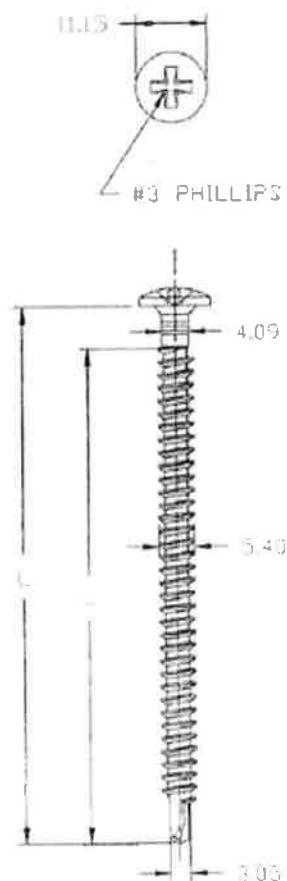
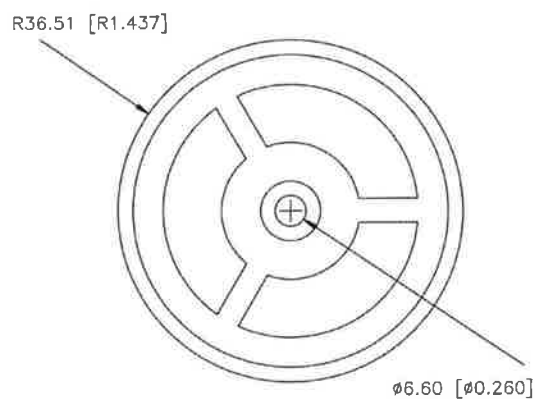
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Annex 6

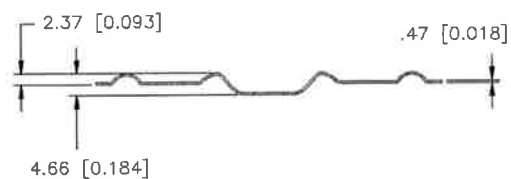
Of the European Technical Approval

OMG Flat Roof Fasteners

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OMG #12 Standard Roofgrip DP**OMG 3" Ribbed Galvalume Insulation Plate**

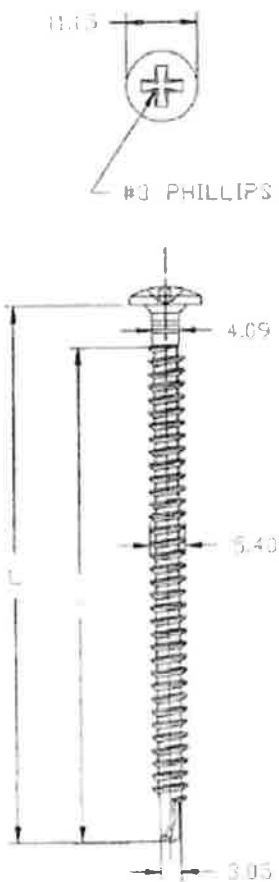
TOLERANCES TO BE
METRICS ± 0.25
DECIMALS ± 0.010

**Combination 7****OMG Flat Roof Fasteners****Annex 7**

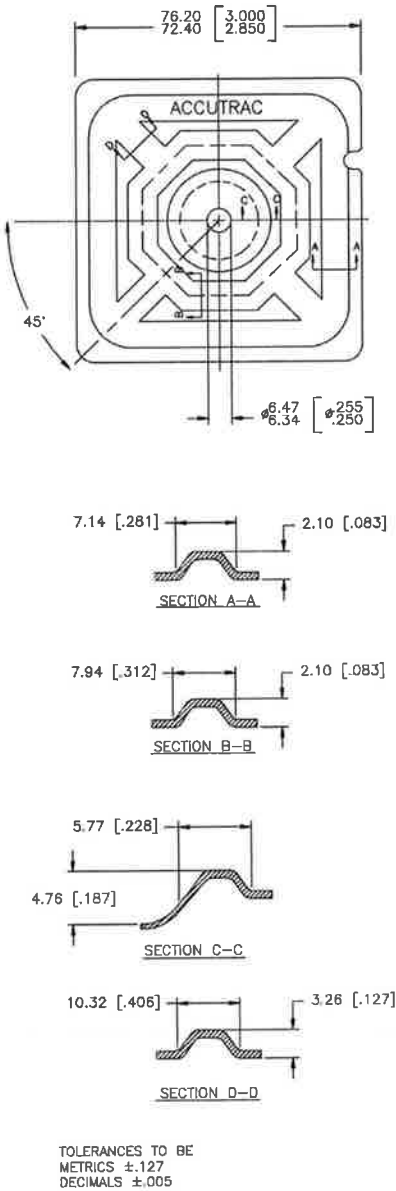
Of the European Technical Approval

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OMG #12 Standard Roofgrip DP



OMG AccuTrac plate

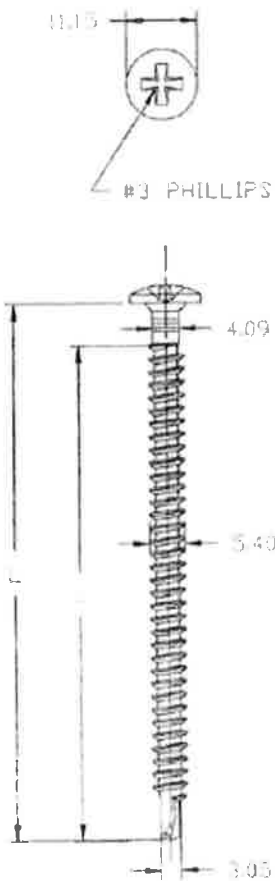


Combination 8

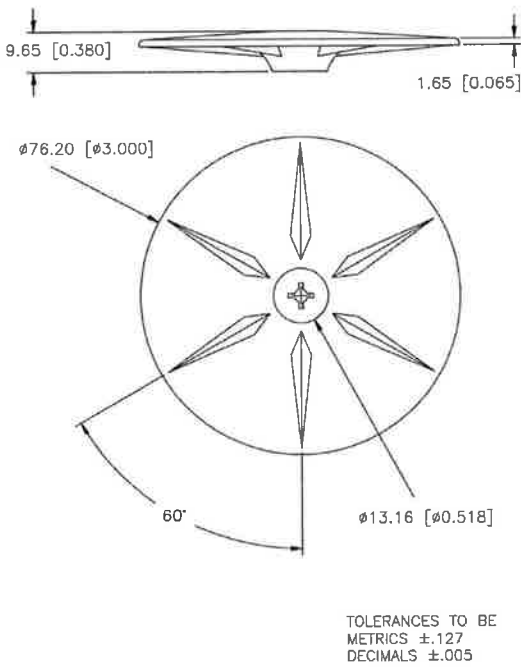
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Of the European Technical Approval
ETA – 09/0337

OMG Flat Roof Fasteners

OMG #12 Standard Roofgrip DP



OMG 3” Plastic Insulation Plate



Combination 9

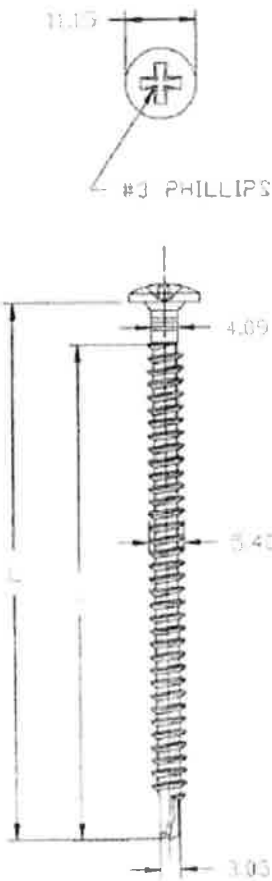
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Of the European Technical Approval

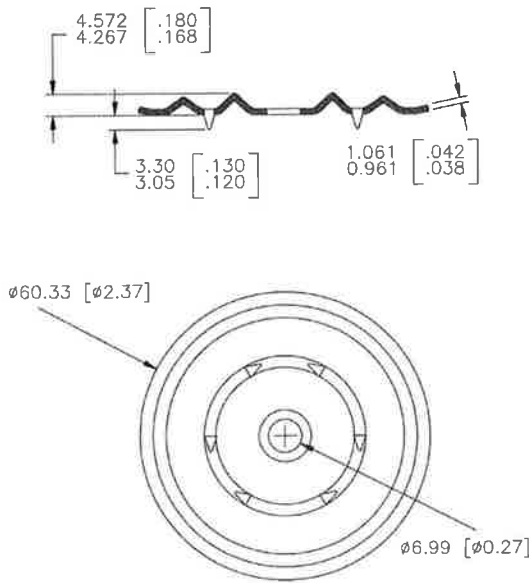
OMG Flat Roof Fasteners

ETA – 09/0337

OMG #12 Standard Roofgrip DP



OMG XHD Barbed Stress Plate



TOLERANCES TO BE
METRICS ±.127
DECIMALS ±.005

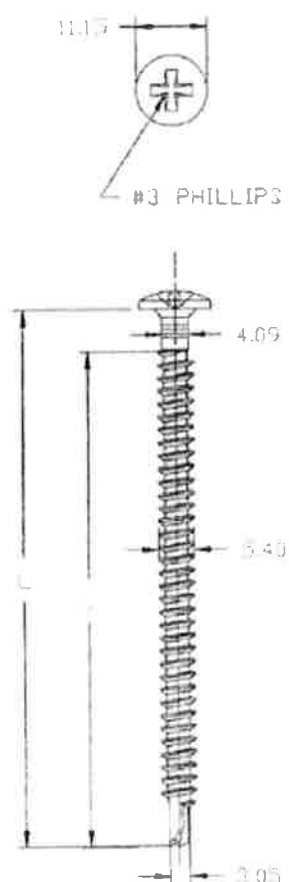
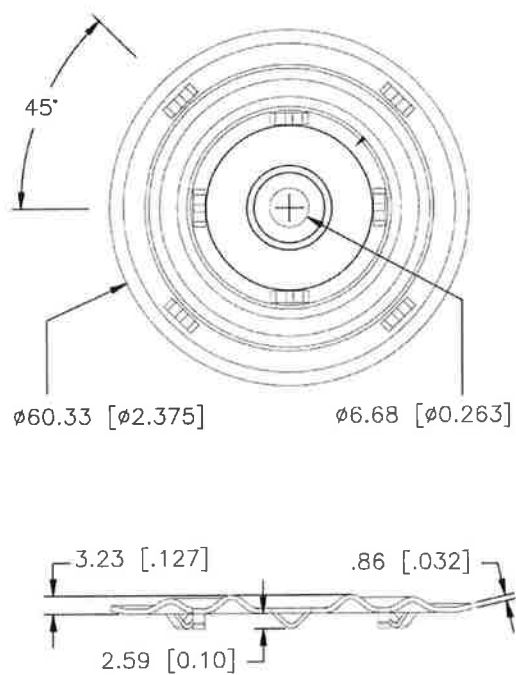
Combination 10

Annex 10

Of the European Technical Approval

OMG Flat Roof Fasteners

ETA – 09/0337

OMG #12 Standard Roofgrip DP**OMG Eyehook Seam Plate**

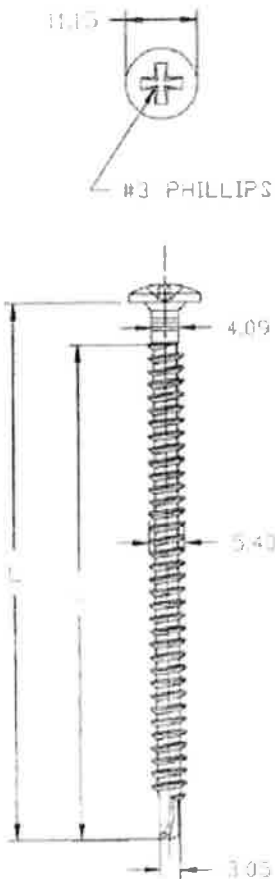
TOLERANCES TO BE
METRICS $\pm .127$
DECIMALS $\pm .005$

Combination 11**OMG Flat Roof Fasteners****Annex 11**

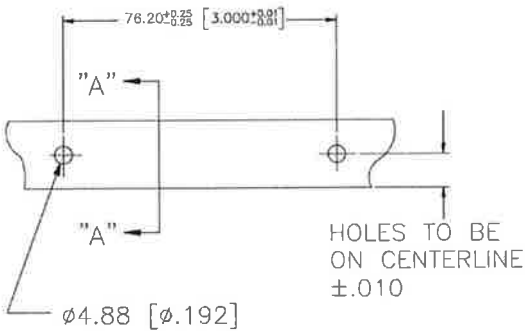
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ETA – 09/0337

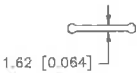
OMG #12 Standard Roofgrip DP



OMG 3/4 " Polymer batten Strip



TOLERANCES TO BE
METRICS ±.127
DECIMALS ±.005



SECTION "A-A"

Combination 12

Annex 12

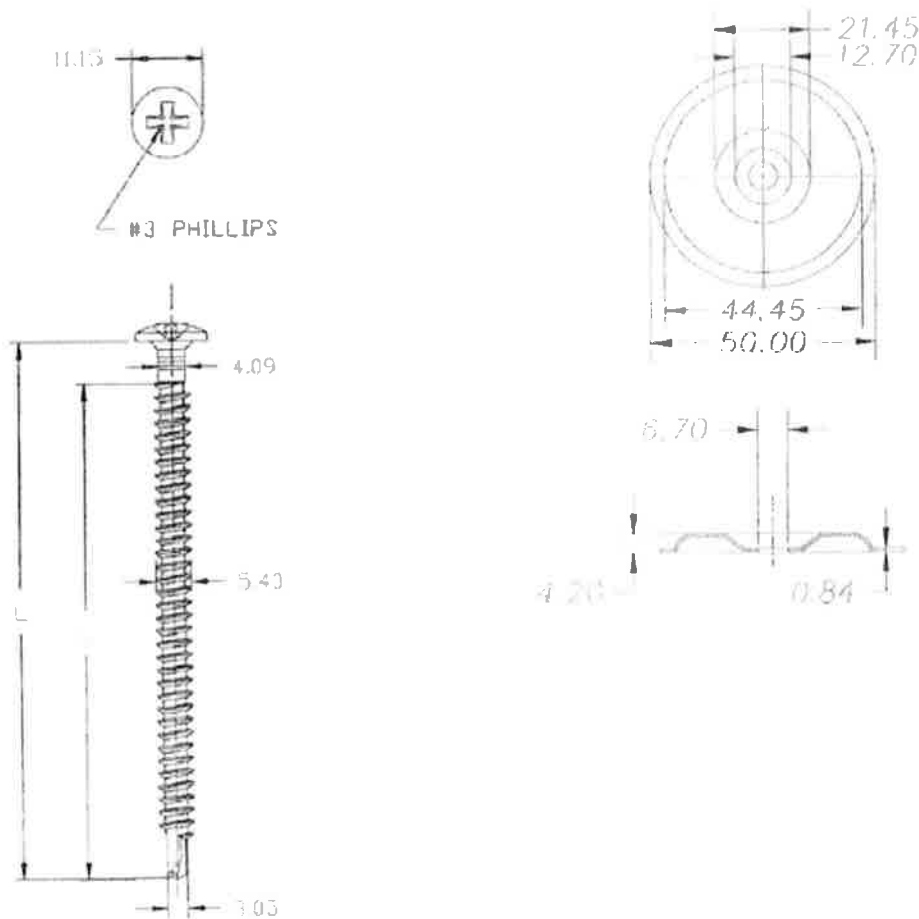
Of the European Technical Approval

OMG Flat Roof Fasteners

ETA – 09/0337

OMG #12 Standard Roofgrip DP

OMG 2” Metal Seam Plate



Combination 13

Annex 13

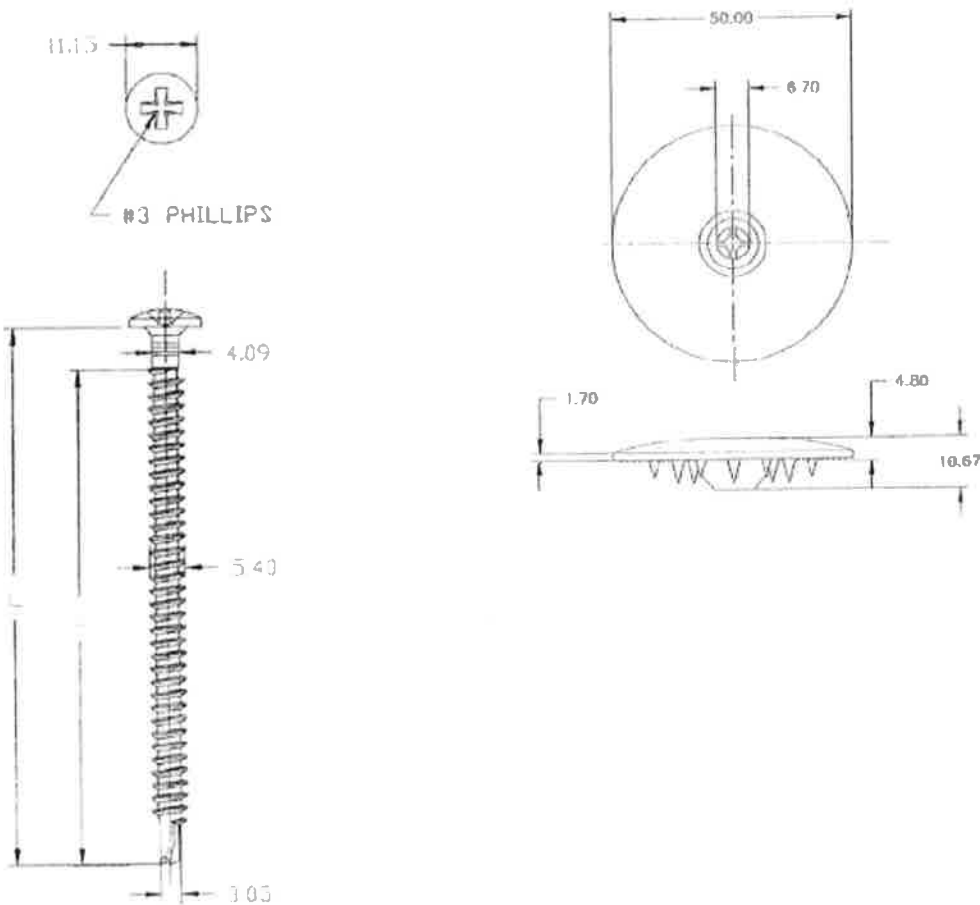
Of the European Technical Approval

OMG Flat Roof Fasteners

ETA – 09/0337

OMG #12 Standard Roofgrip DP

OMG 2” Plastic Barbed Metal Seam Plate



Combination14

Annex 14

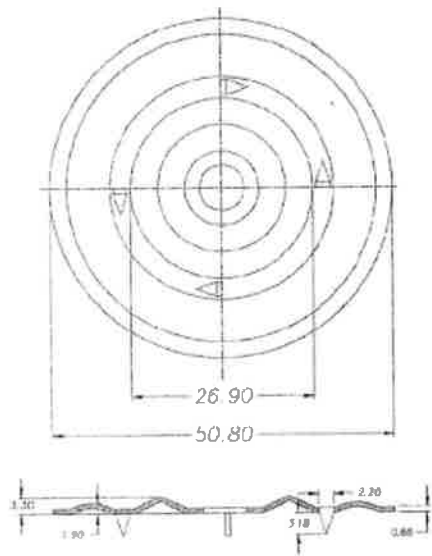
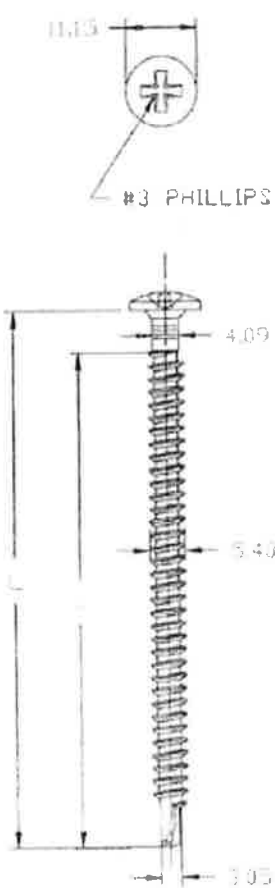
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OMG Flat Roof Fasteners

ETA – 09/0337

OMG #12 Standard Roofgrip DP

OMG 2” Metal barbed Seam Plate



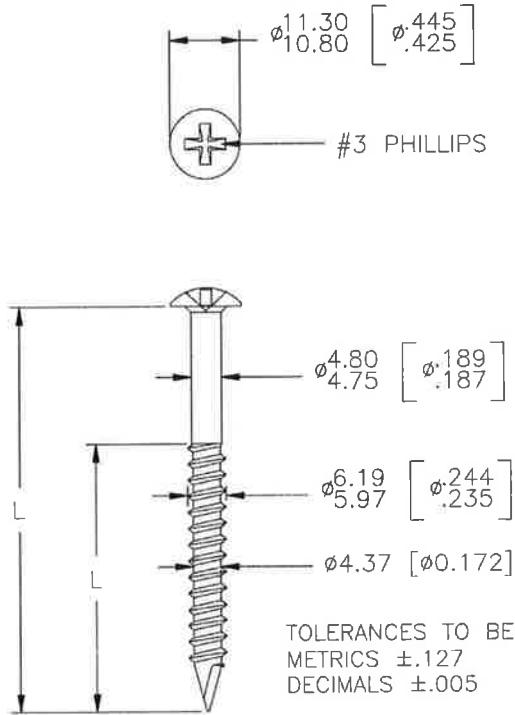
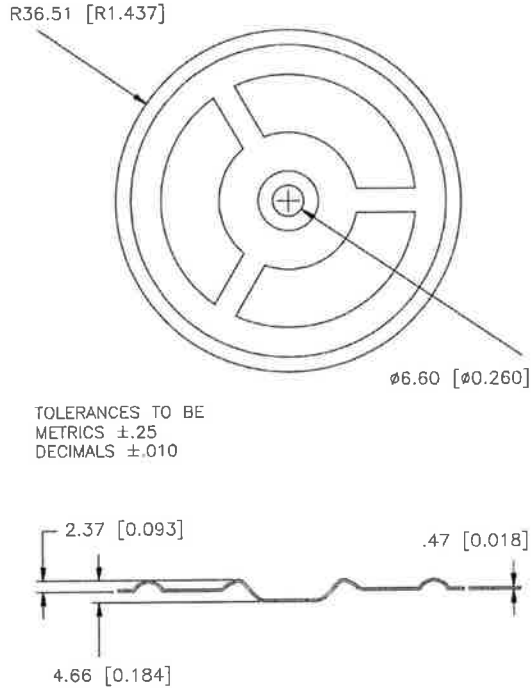
Combination15

Annex 15

Of the European Technical Approval

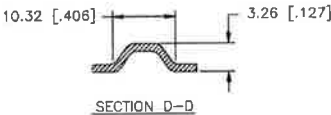
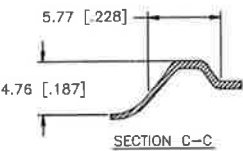
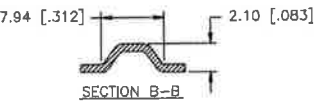
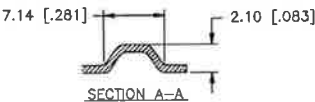
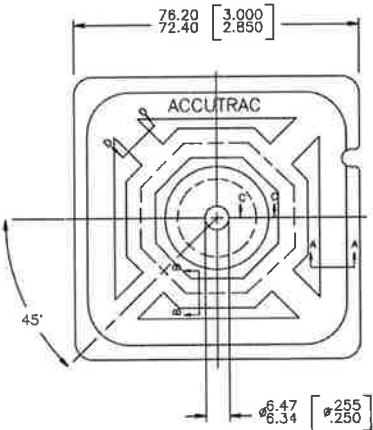
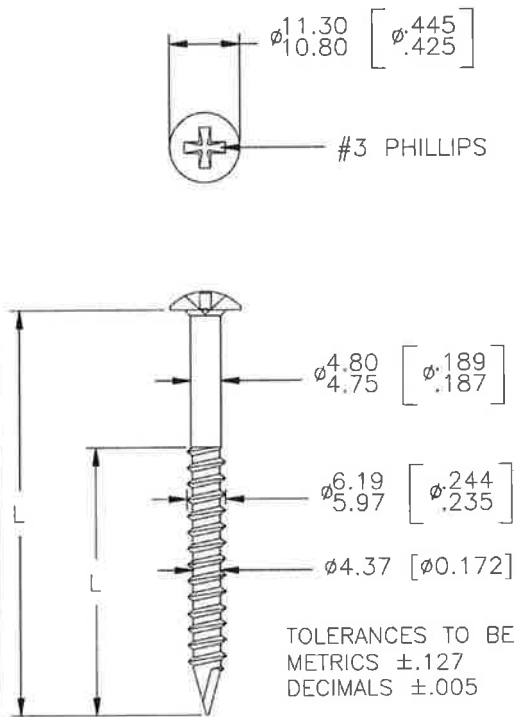
OMG Flat Roof Fasteners

ETA – 09/0337

OMG #14 Heavy Duty Fastener	OMG 3" Ribbed Galvalume Insulation Plate
 <p>OMG #14 Heavy Duty Fastener</p> <p>Technical drawing showing dimensions and tolerances for the fastener. Dimensions include head diameter (11.30), head thickness (10.80), shaft diameter (4.80), thread pitch (1.30), thread outer diameter (6.19), thread minor diameter (5.97), and unthreaded shaft diameter (4.37). Tolerances are specified in both metric and decimal units.</p>	 <p>OMG 3" Ribbed Galvalume Insulation Plate</p> <p>Technical drawing showing dimensions and tolerances for the insulation plate. Dimensions include outer radius (R36.51), central hole diameter (6.60), rib height (2.37), rib width (4.66), and rib depth (.47). Tolerances are specified in both metric and decimal units.</p>
Combination 16	Annex 16 Of the European Technical Approval ETA – 09/0337
OMG Flat Roof Fasteners	

OMG #14 Heavy Duty Fastener

OMG AccuTrac plate



TOLERANCES TO BE
METRICS $\pm .127$
DECIMALS $\pm .005$

Combination 17

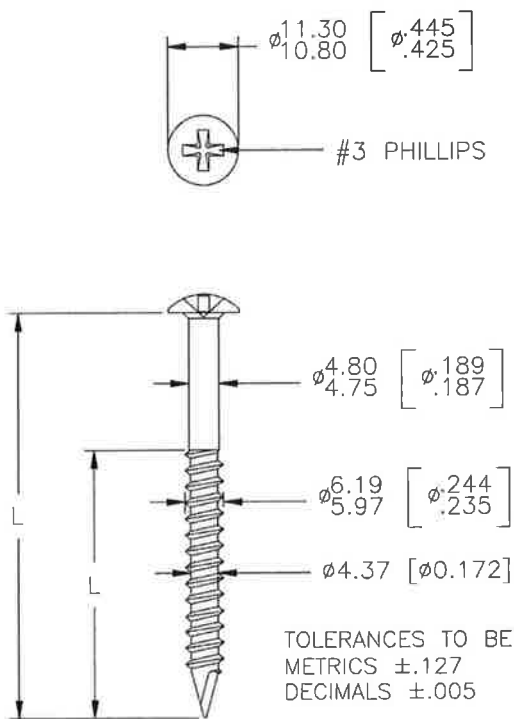
Annex 17

Of the European Technical Approval

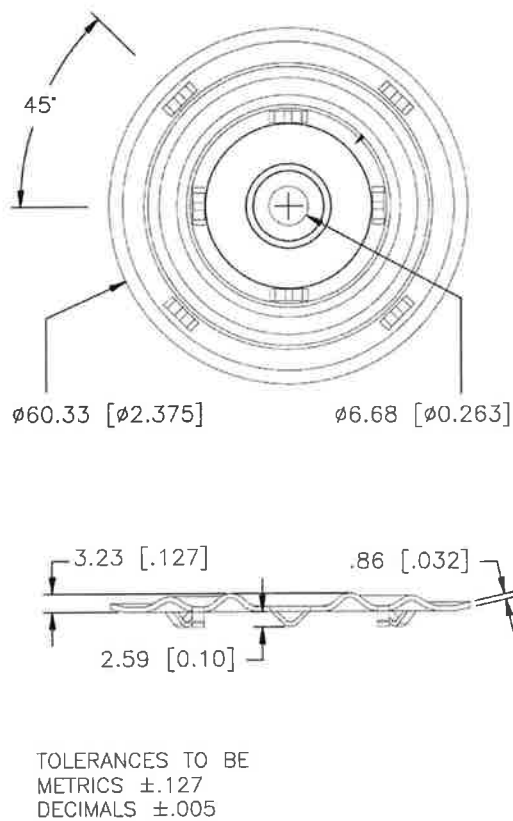
ETA – 09/0337

OMG Flat Roof Fasteners

OMG #14 Heavy Duty Fastener



OMG Eyehook seam plate



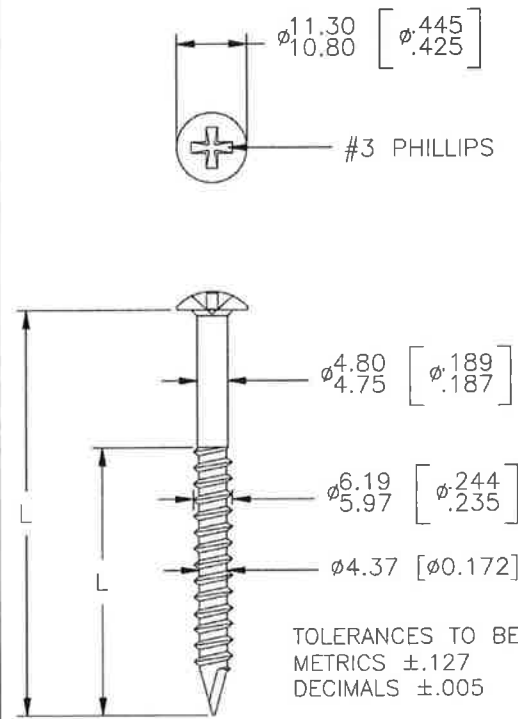
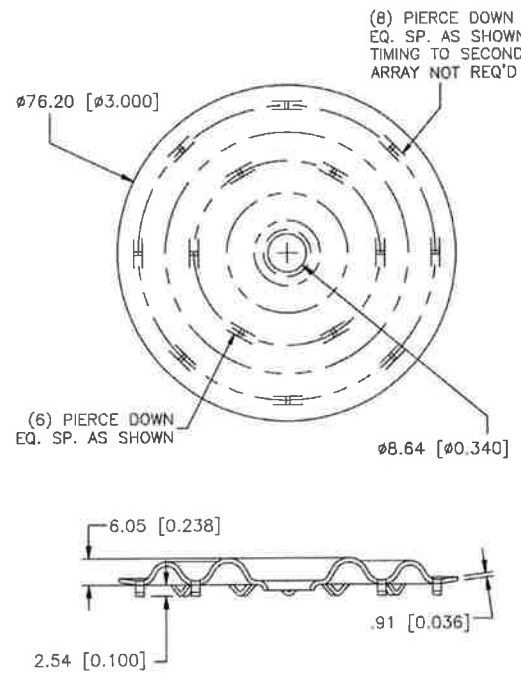
Combination 18

Annex 18

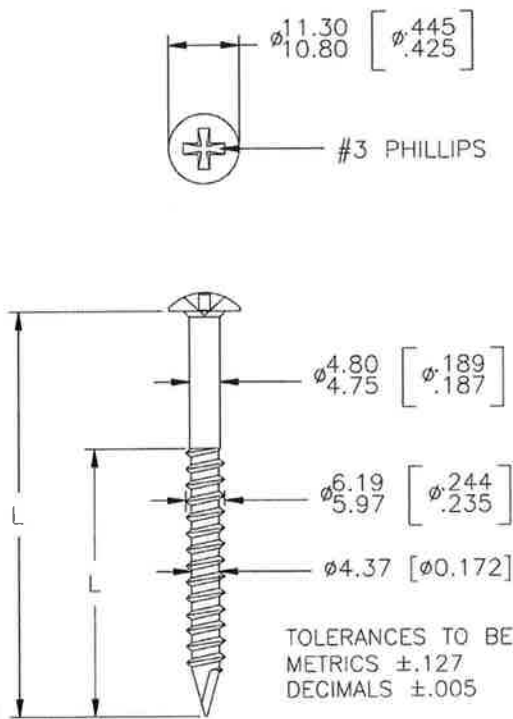
Of the European Technical Approval

ETA – 09/0337

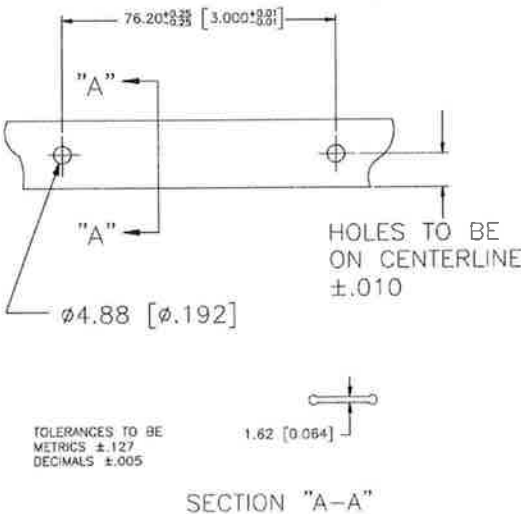
OMG Flat Roof Fasteners

<p>OMG #14 Heavy Duty Fastener</p>  <p>TOLERANCES TO BE METRICS ±.127 DECIMALS ±.005</p>	<p>OMG Maxload seam plate</p>  <p>TOLERANCES TO BE METRICS ±.25 DECIMALS ±.010</p>
<p>Combination 19</p> <p>OMG Flat Roof Fasteners</p>	<p>Annex 19</p> <p>Of the European Technical Approval</p> <p>ETA – 09/0337</p>

OMG #14 Heavy Duty Fastener



OMG 3/4" polymer batten strip



Combination 20

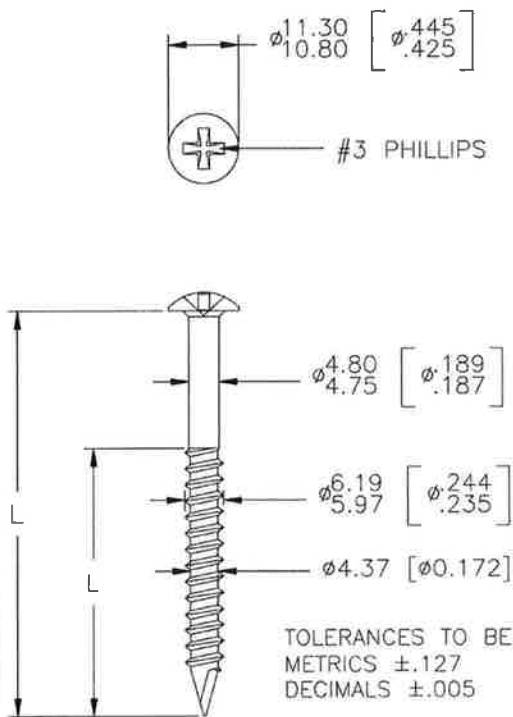
Annex 20

Of the European Technical Approval

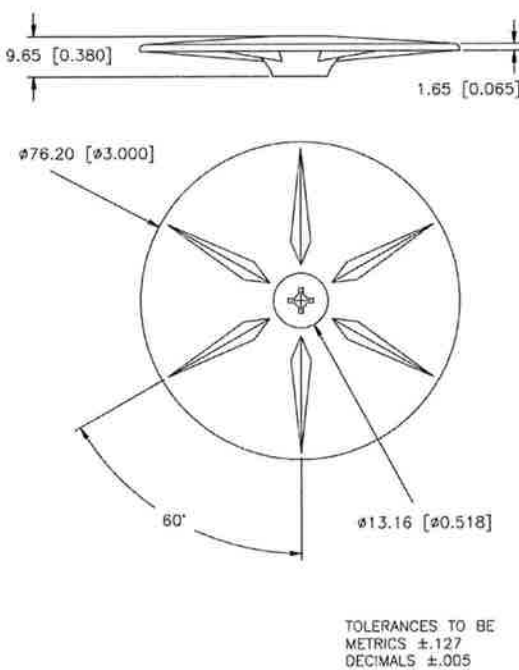
ETA – 09/0337

OMG Flat Roof Fasteners

OMG #14 Heavy Duty Fastener



OMG 3" Plastic Insulation Plate



Combination 21

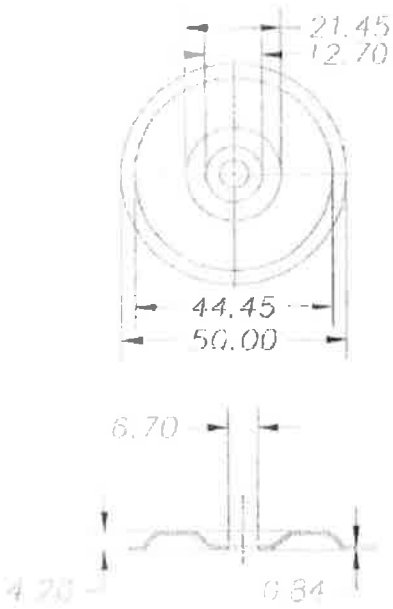
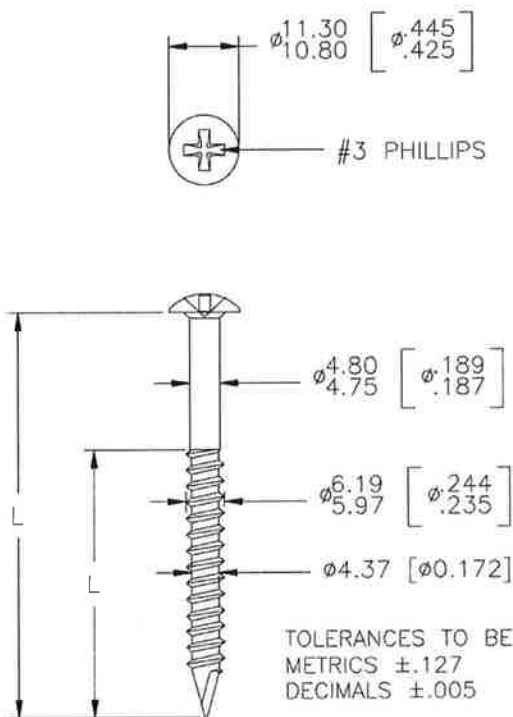
Annex 21

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OMG Flat Roof Fasteners

OMG #14 Heavy Duty Fastener

OMG 2” Metal Seam Plate



Combination 22

Annex 22

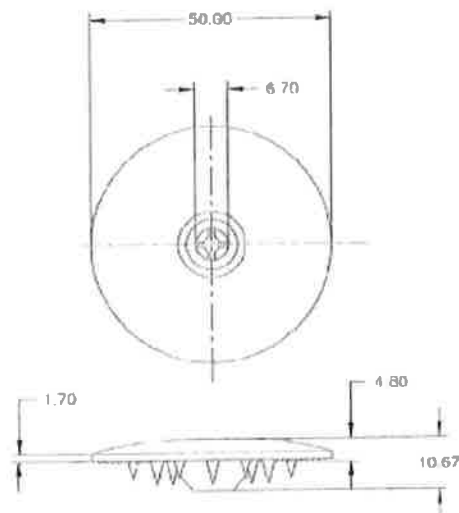
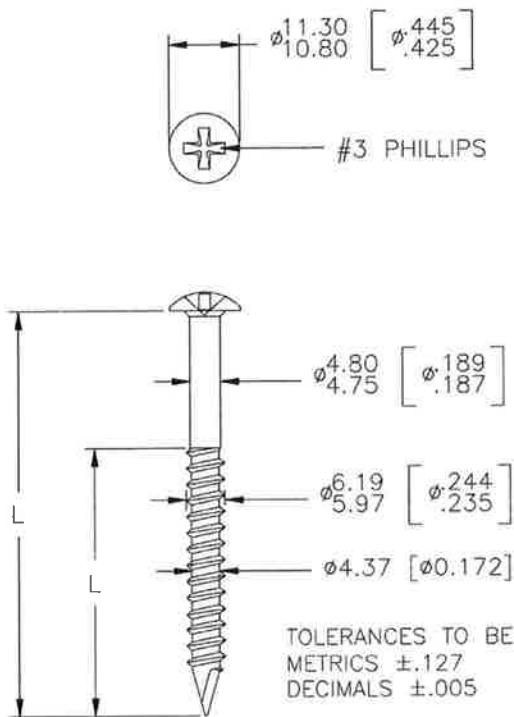
Of the European Technical Approval

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OMG Flat Roof Fasteners

OMG #14 Heavy Duty Fastener

OMG 2" Plastic barbed Seam Plate



Combination 23

Annex 23

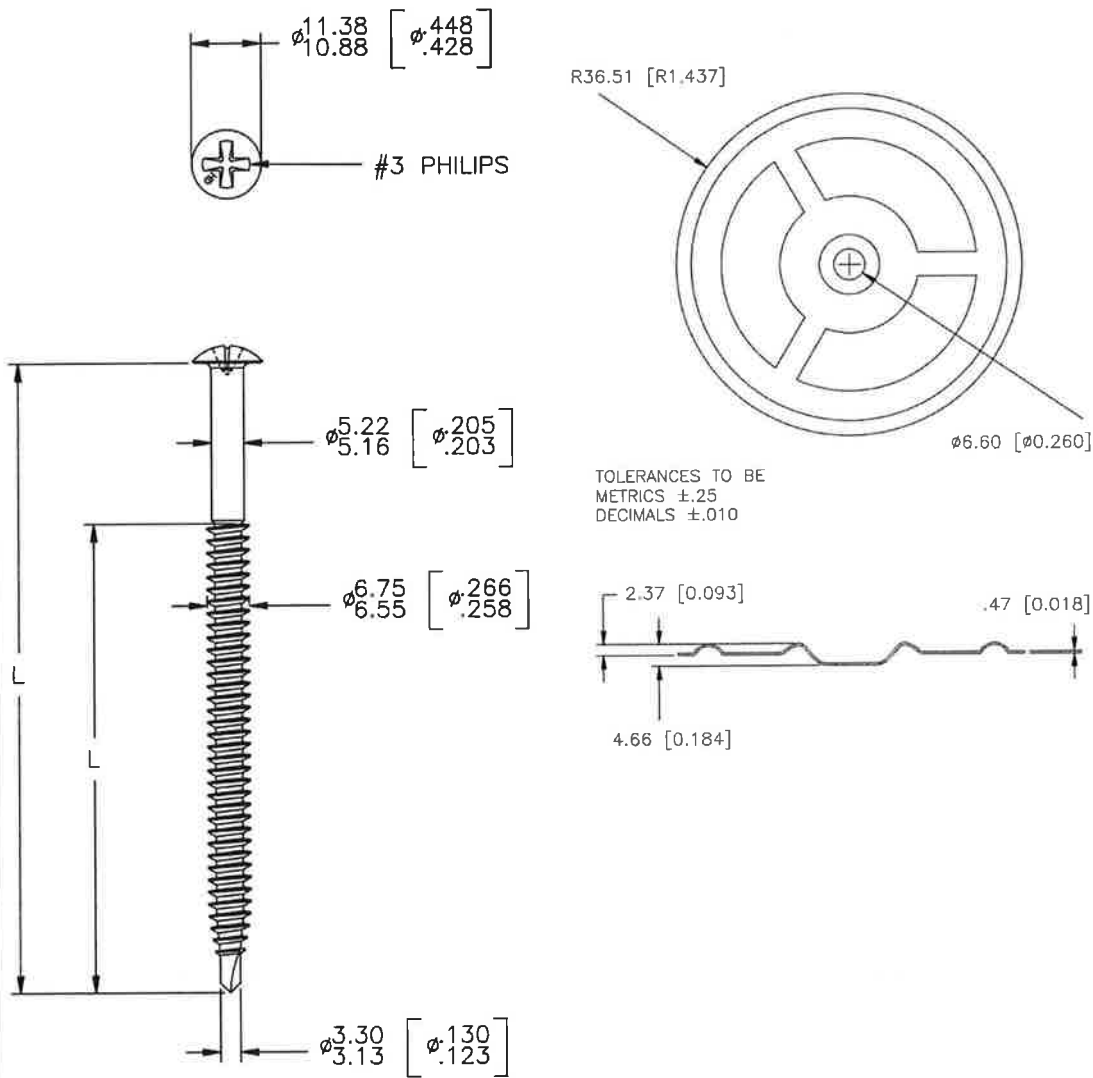
Of the European Technical Approval

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OMG Flat Roof Fasteners

OMG #15 Roofgrip

OMG 3" Ribbed Galvalume Insulation Plate



Combination 25

Annex 25

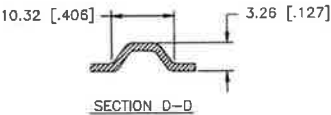
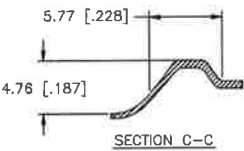
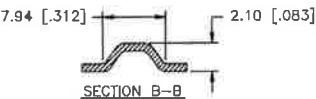
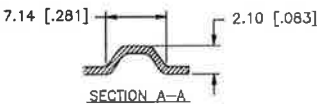
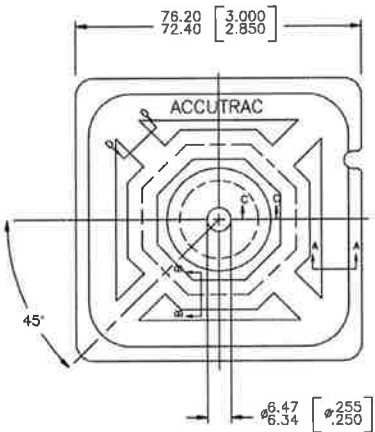
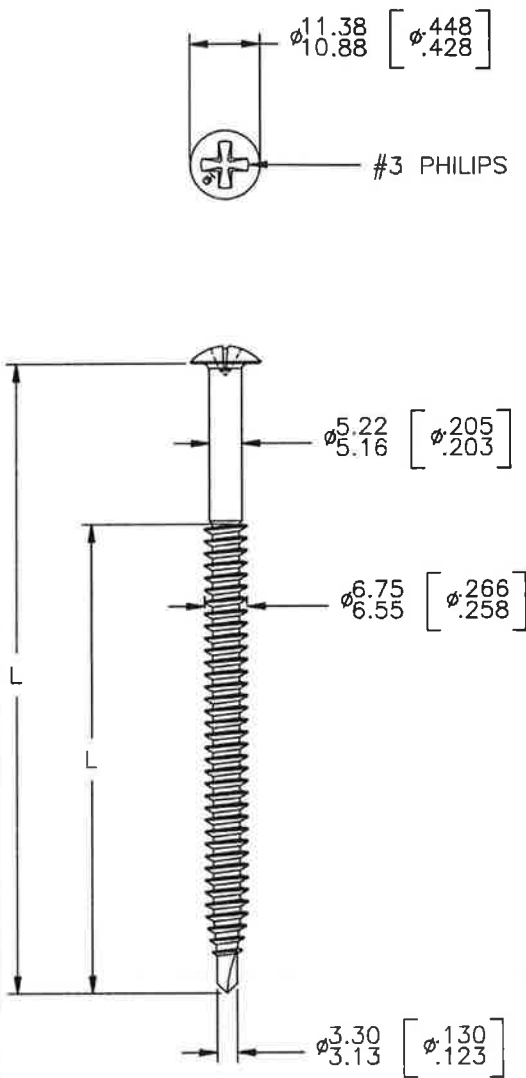
Of the European Technical Approval

ETA – 09/0337

OMG Flat Roof Fasteners

OMG #15 Roofgrip

OMG AccuTrac plate



TOLERANCES TO BE
METRICS $\pm .127$
DECIMALS $\pm .005$

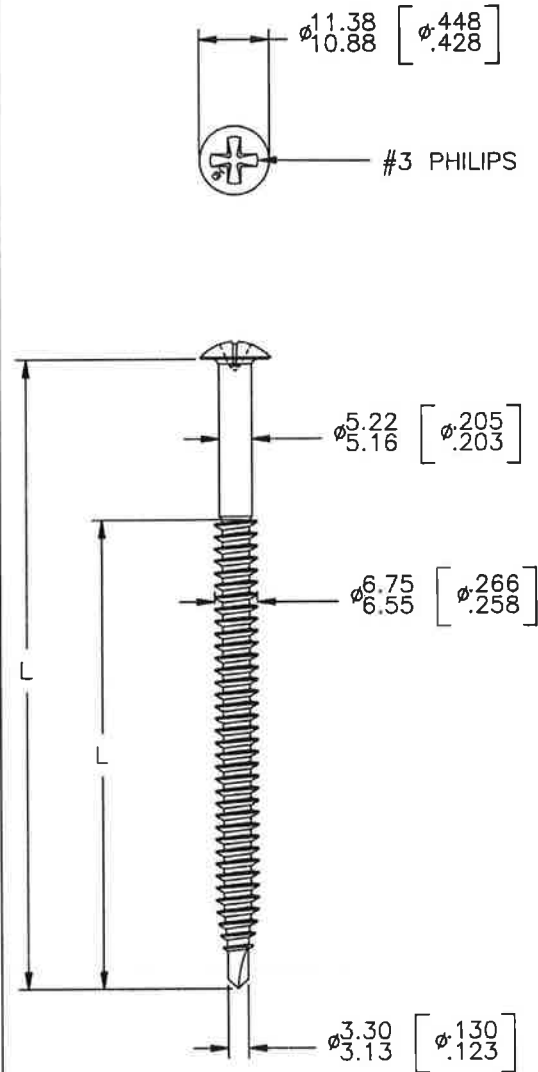
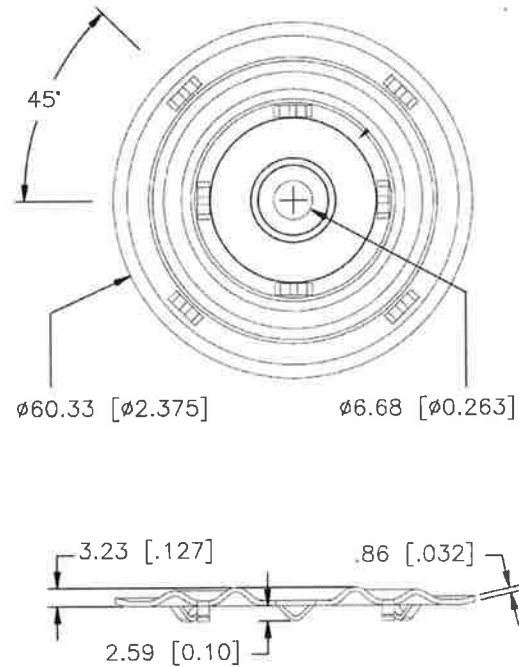
Combination 26

Annex 26

Of the European Technical Approval

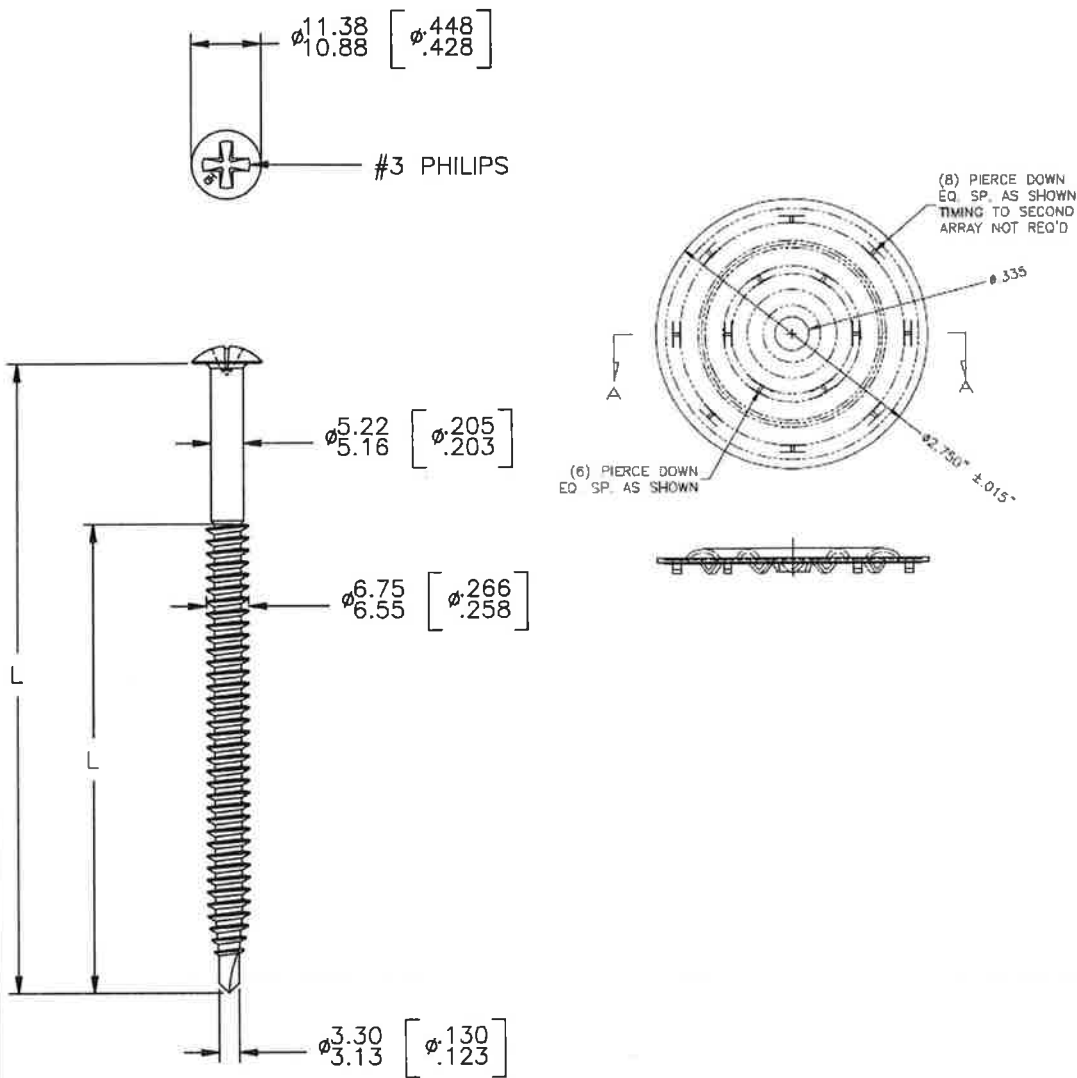
OMG Flat Roof Fasteners

ETA – 09/0337

<p>OMG #15 Roofgrip</p> 	<p>OMG 2 3/8" Eyehook seam plate</p>  <p>TOLERANCES TO BE METRICS $\pm .127$ DECIMALS $\pm .005$</p>
<p>Combination 27</p> <p>OMG Flat Roof Fasteners</p>	<p>Annex 27</p> <p>Of the European Technical Approval</p> <p>ETA – 09/0337</p>

OMG #15 Roofgrip

OMG 2 3/4" Eyehook seam plate



Combination 28

Annex 28

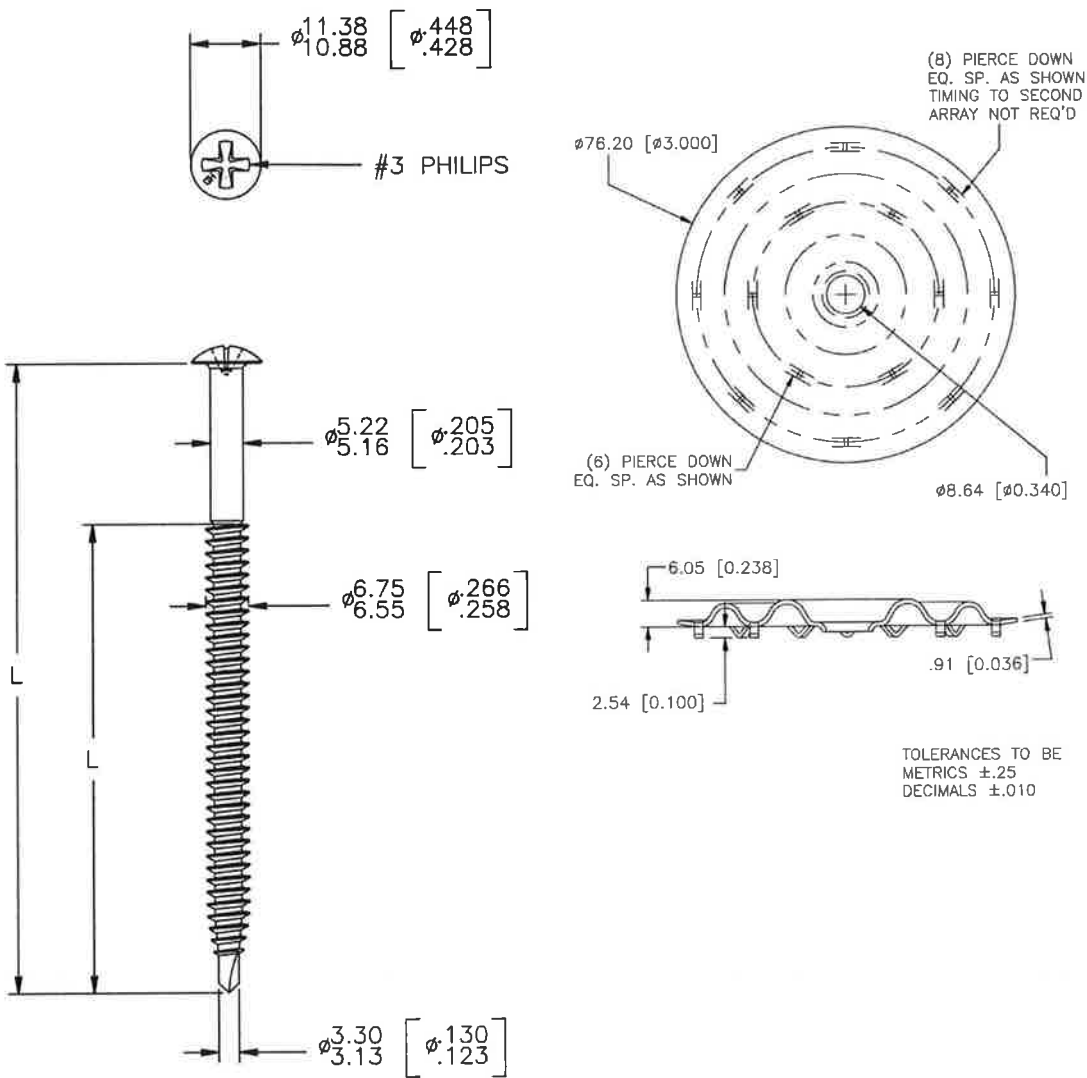
Of the European Technical Approval

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OMG Flat Roof Fasteners

OMG #15 Roofgrip

OMG Maxload seam plate



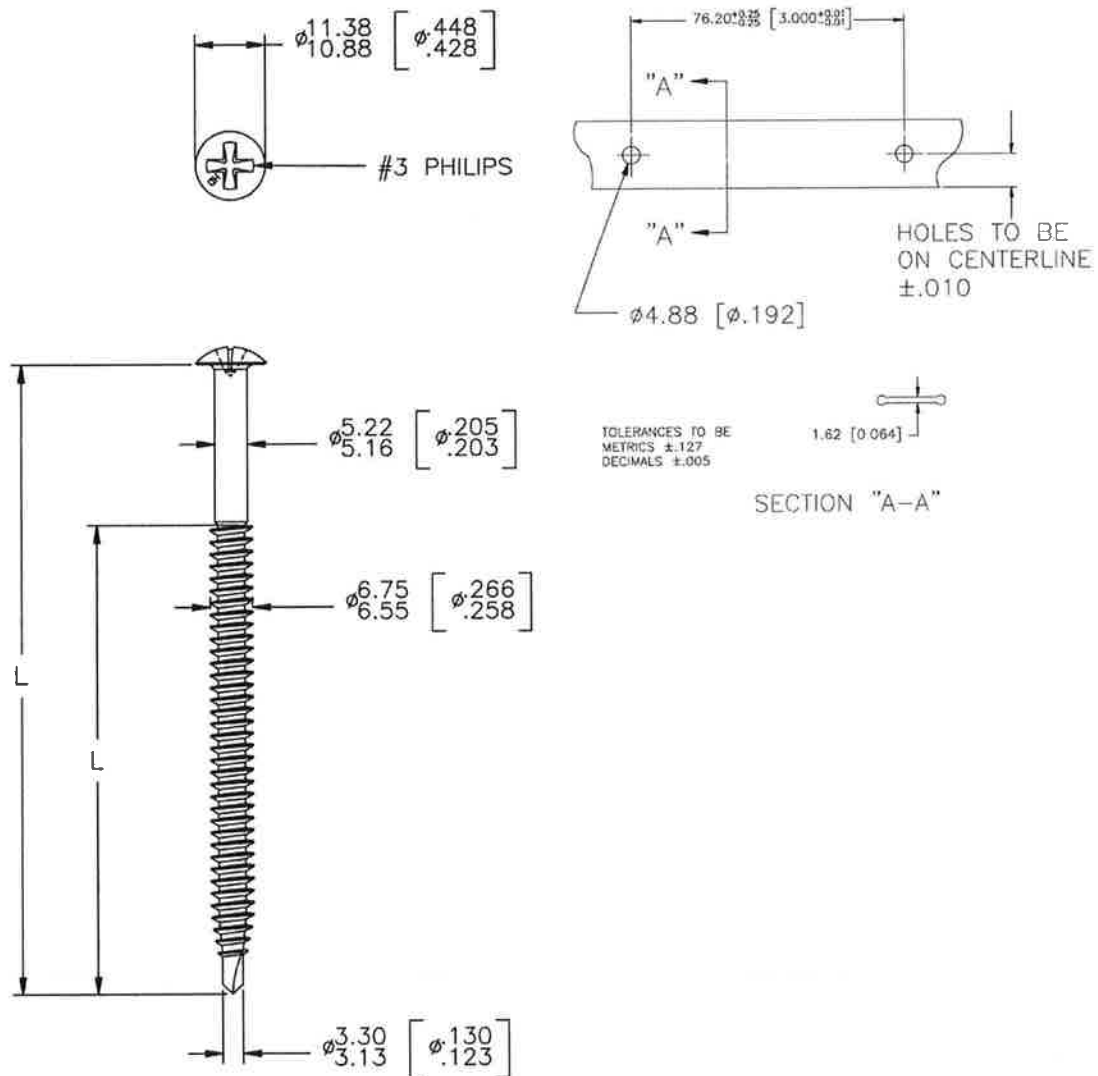
Combination 29

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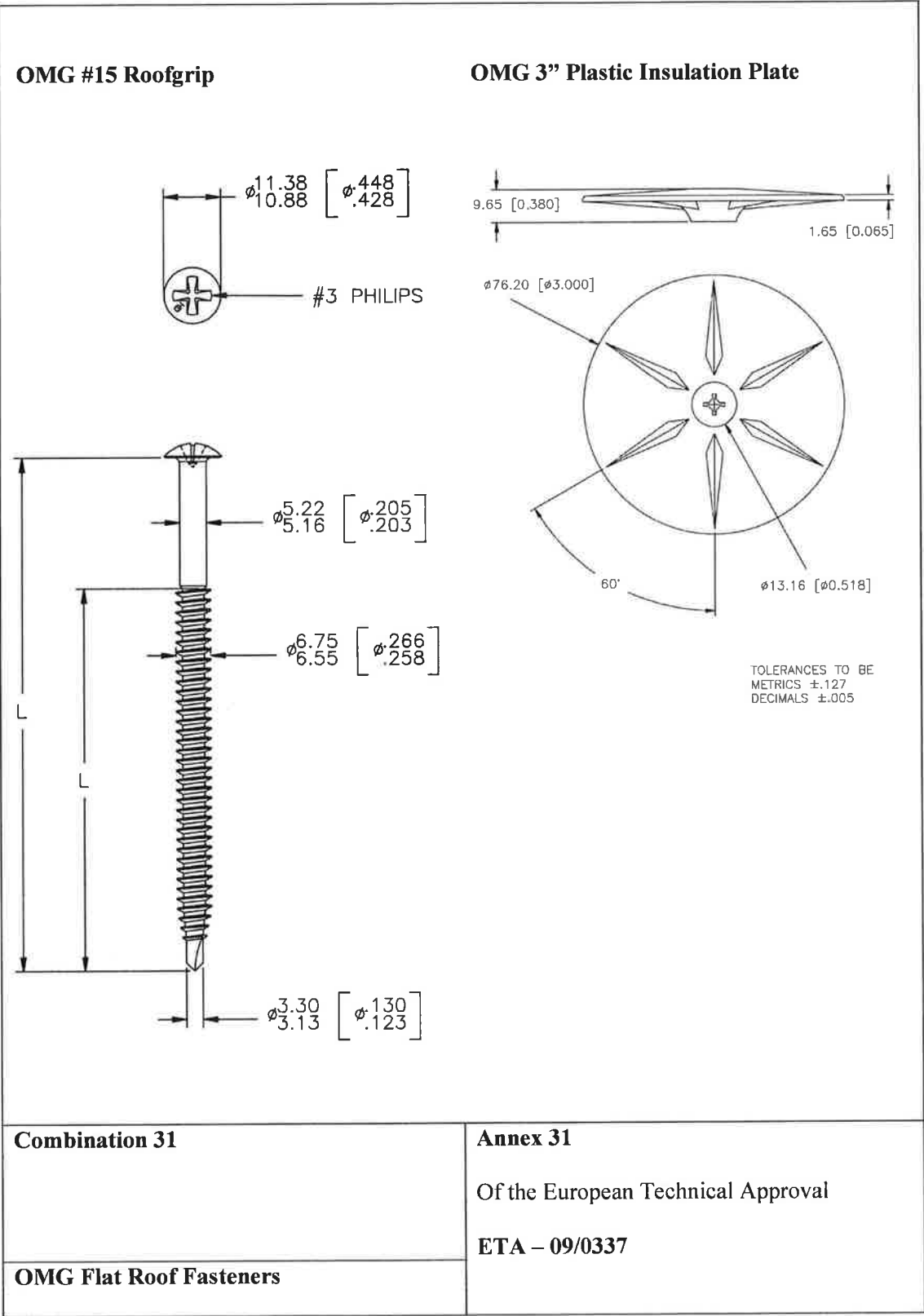
ETA – 09/0337

OMG Flat Roof Fasteners

OMG #15 Roofgrip**OMG ¾" polymer batten strip****Combination 30****Annex 30**

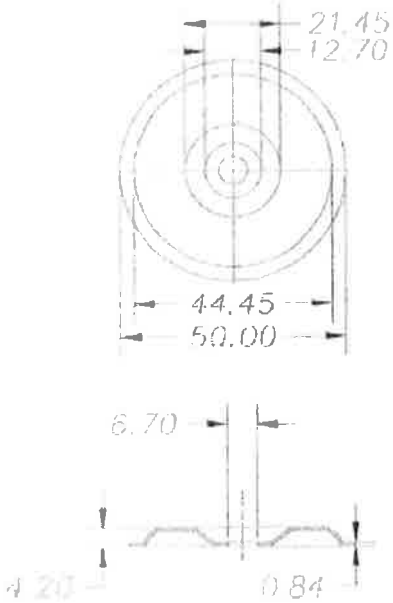
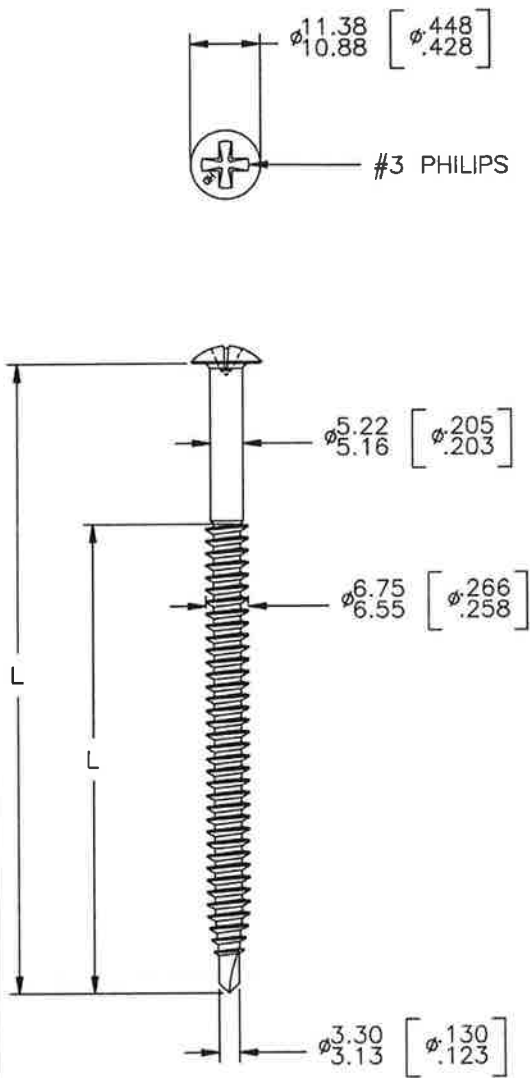
Of the European Technical Approval

ETA – 09/0337**OMG Flat Roof Fasteners**



OMG #15 Roofgrip

OMG 2" Metal Seam Plate



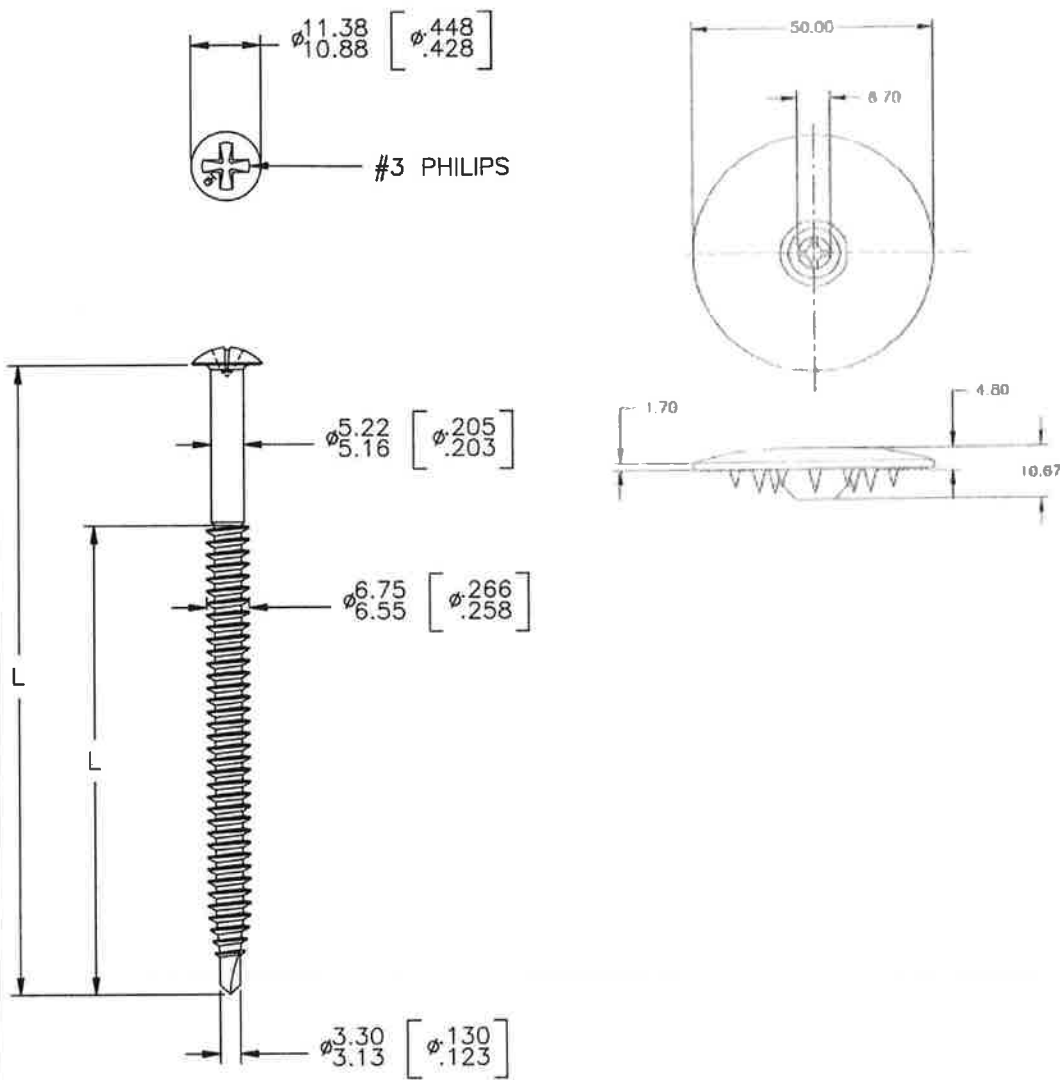
Combination 32

Annex 32
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OMG Flat Roof Fasteners

OMG #15 Roofgrip

OMG 2" Plastic Barbed Seam Plate



Combination 33

Annex 33

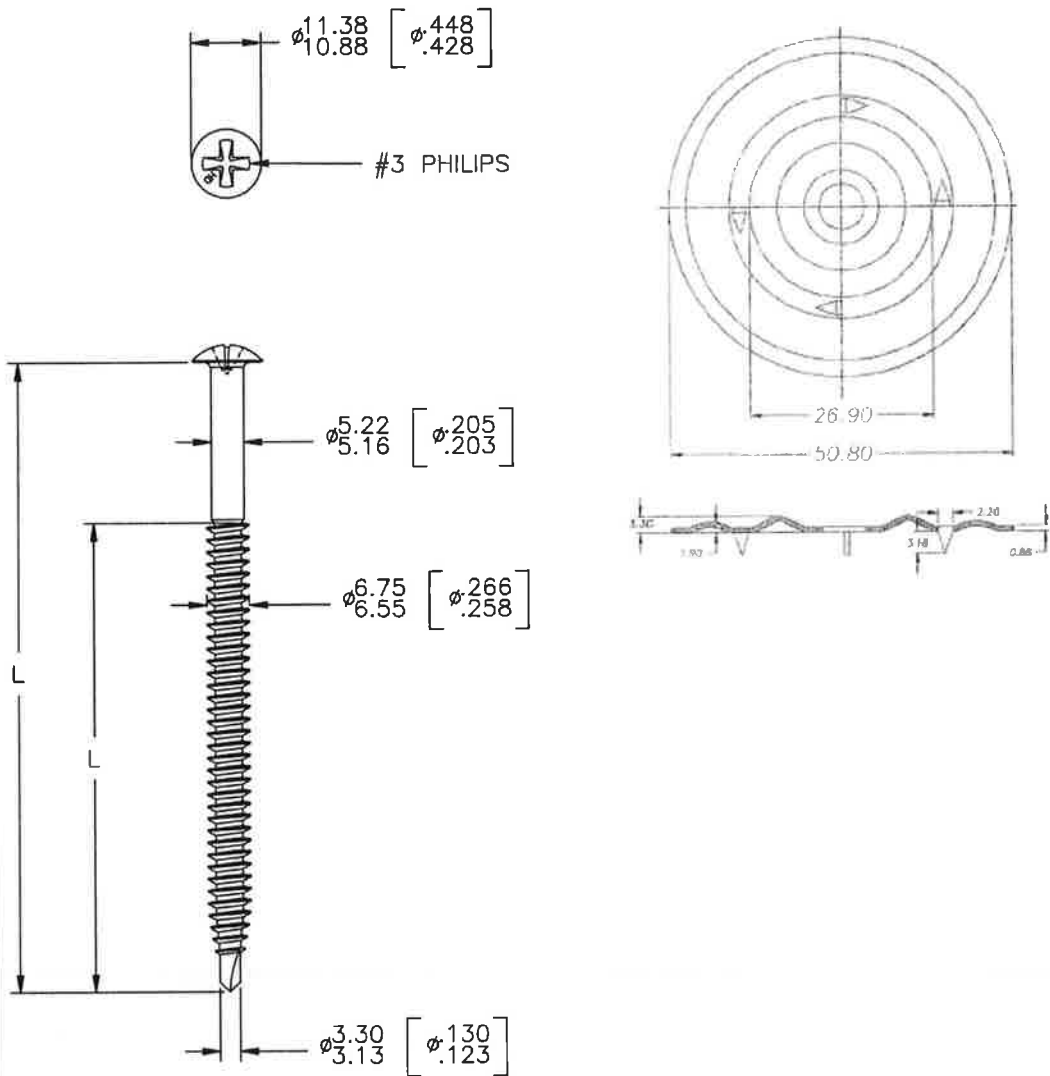
Of the European Technical Approval

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OMG Flat Roof Fasteners

OMG #15 Roofgrip

OMG 2” Metal Barbed Seam Plate



Combination 34

Annex 34

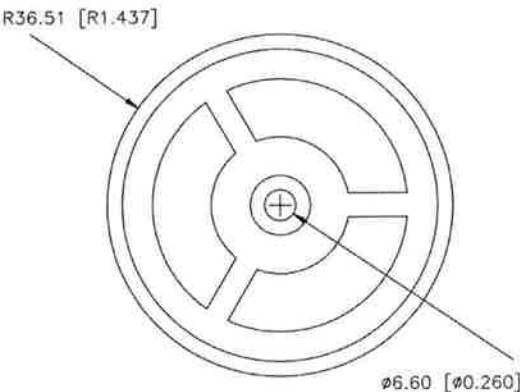
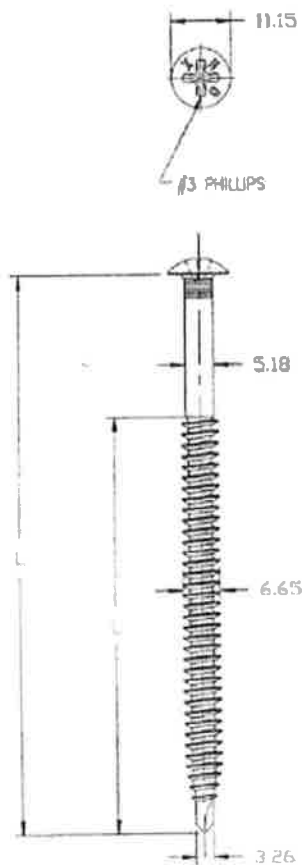
Of the European Technical Approval

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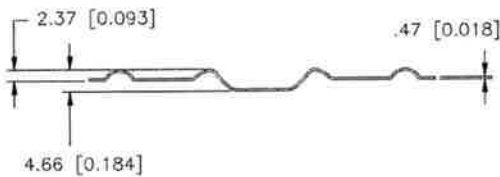
OMG Flat Roof Fasteners

OMG XHD

OMG 3" Ribbed Galvalume Insulation Plate



TOLERANCES TO BE
METRICS ±.25
DECIMALS ±.010

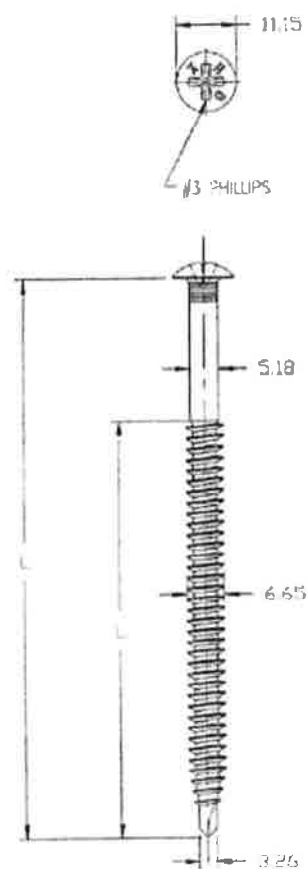
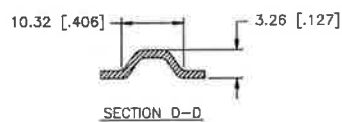
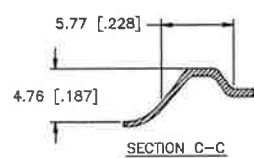
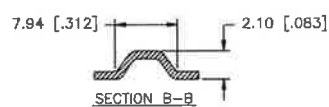
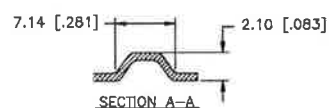
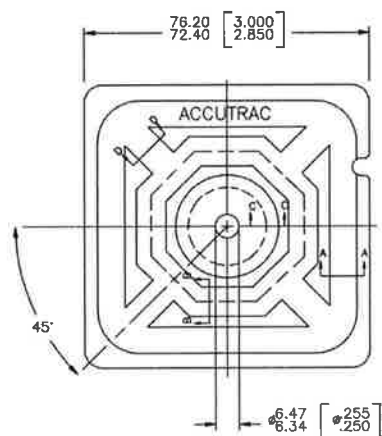


Combination 35

Annex 35

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OMG Flat Roof Fasteners

OMG XHD**OMG 3" AccuTrac plate**

TOLERANCES TO BE
METRICS $\pm .127$
DECIMALS $\pm .005$

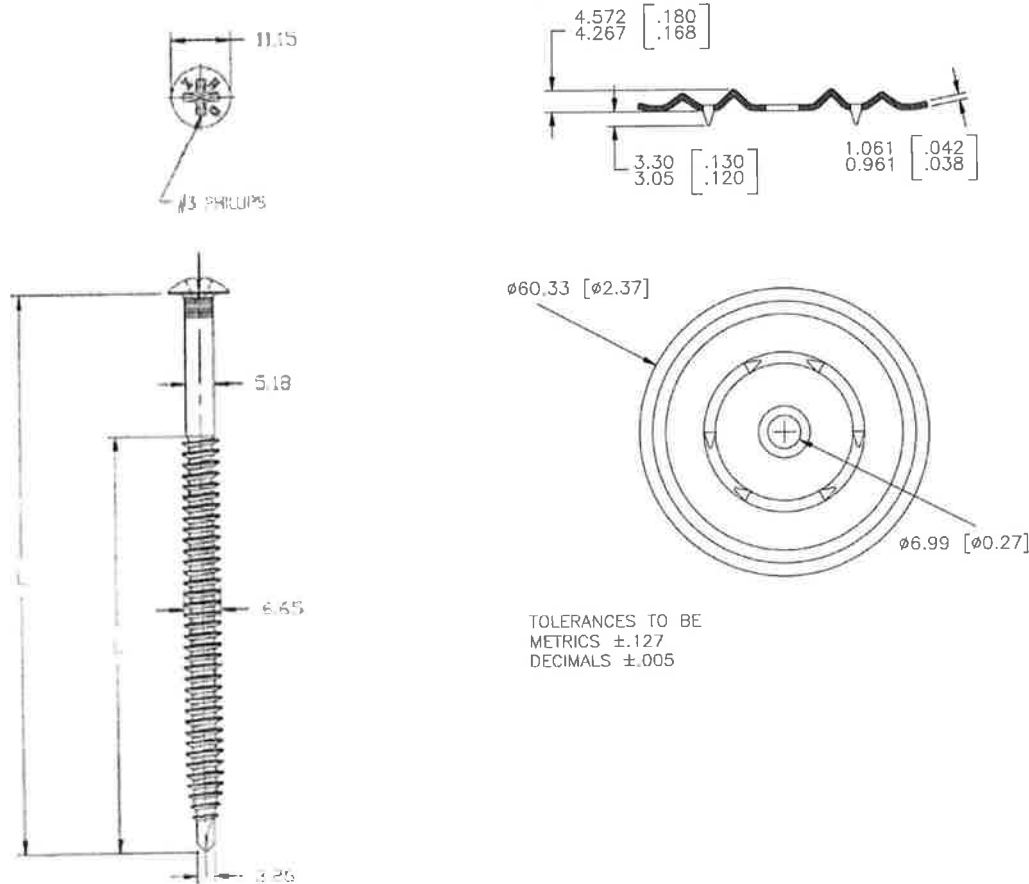
Combination 36**Annex 36**

Of the European Technical Approval

ETA – 09/0337**OMG Flat Roof Fasteners**

OMG XHD

OMG XHD Barbed Stress Plate



Combination 37

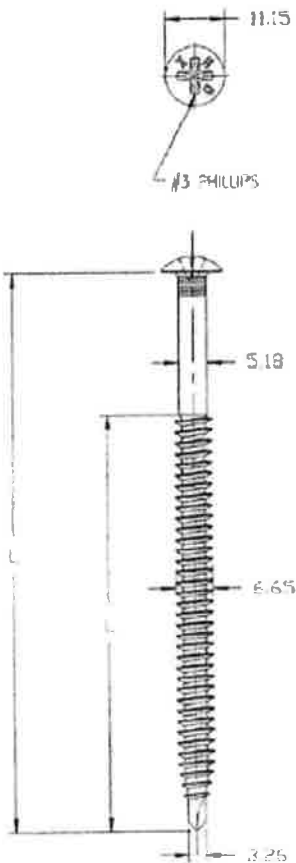
Annex 37

Of the European Technical Approval

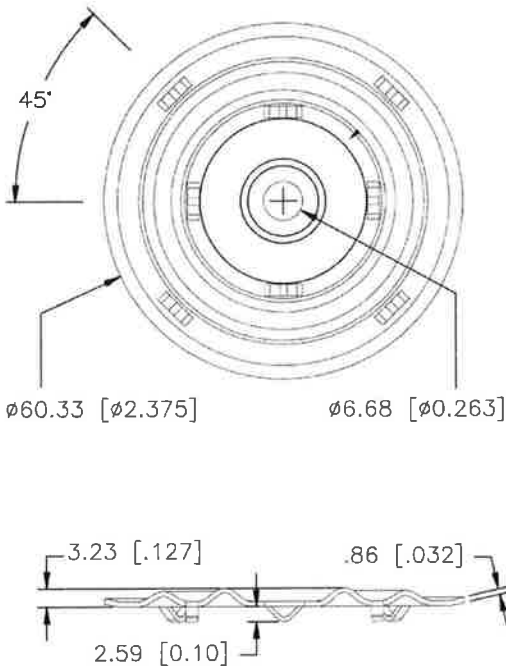
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OMG Flat Roof Fasteners

OMG XHD



OMG Eyehook seam plate



TOLERANCES TO BE
METRICS ±.127
DECIMALS ±.005

Combination 38

Annex 38

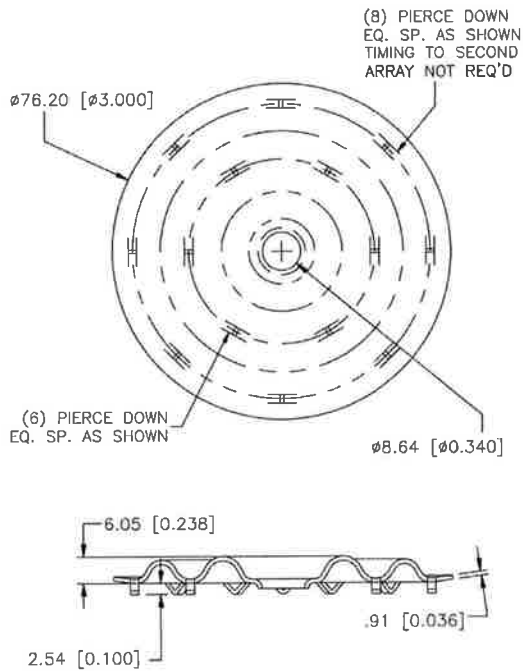
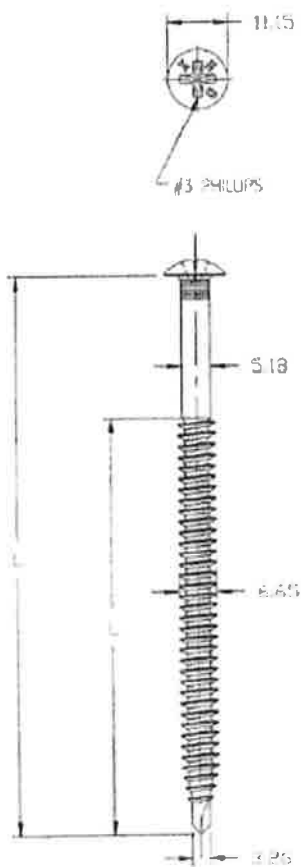
Of the European Technical Approval

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OMG Flat Roof Fasteners

OMG XHD

OMG Maxload seam plate



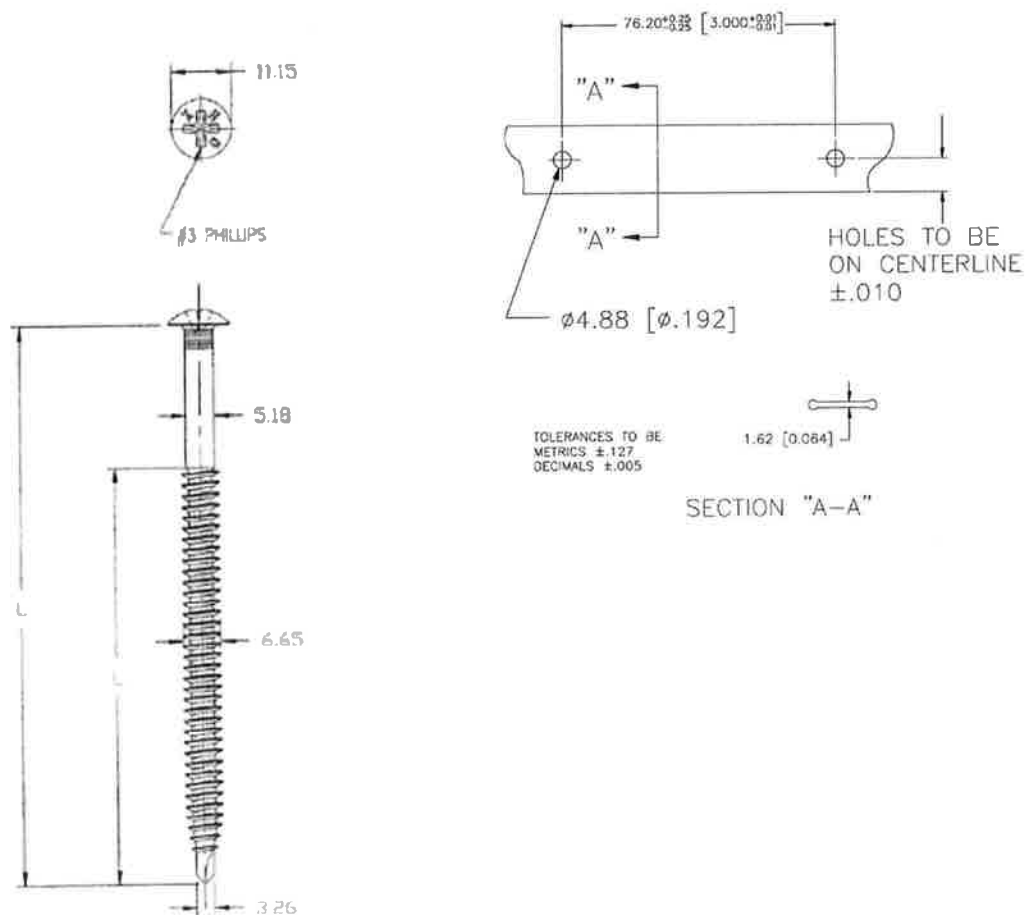
TOLERANCES TO BE
METRICS ±.25
DECIMALS ±.010

Combination 39

Annex39

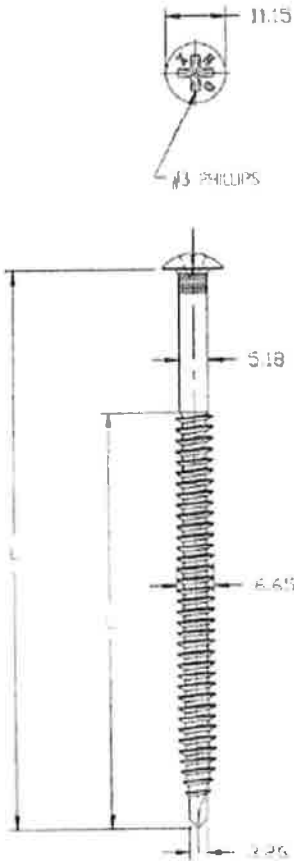
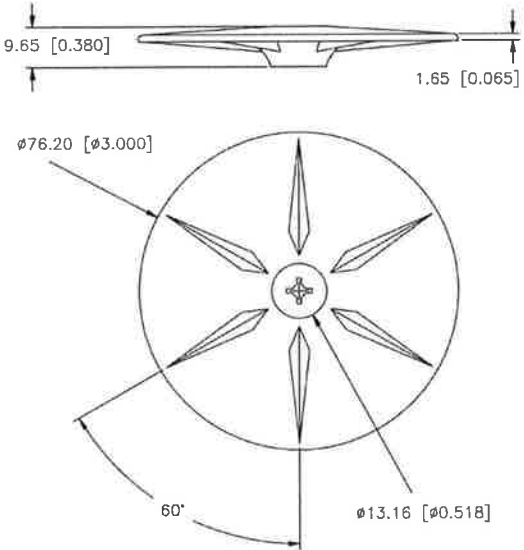
Of the European Technical Approval
ETA – 09/0337

OMG Flat Roof Fasteners

OMG XHD**OMG ¼" polymer batten strip****Combination 40****Annex 40**

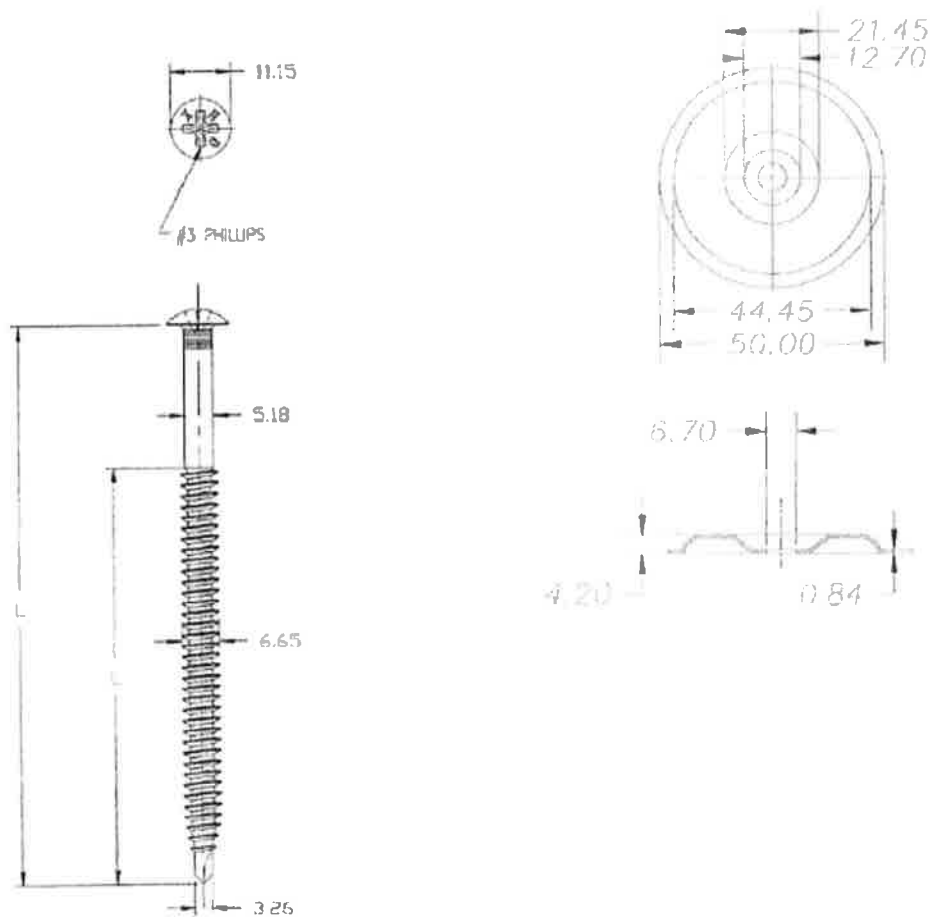
Of the European Technical Approval

ETA – 09/0337**OMG Flat Roof Fasteners**

<p>OMG XHD</p> 	<p>OMG 3" Plastic Insulation Plate</p>  <p>TOLERANCES TO BE METRICS ±.127 DECIMALS ±.005</p>
<p>Combination 41</p> <p>OMG Flat Roof Fasteners</p>	<p>Annex 41</p> <p>Of the European Technical Approval</p> <p>ETA – 09/0337</p>

OMG XHD

OMG 2" Metal Seam Plate



Combination 42

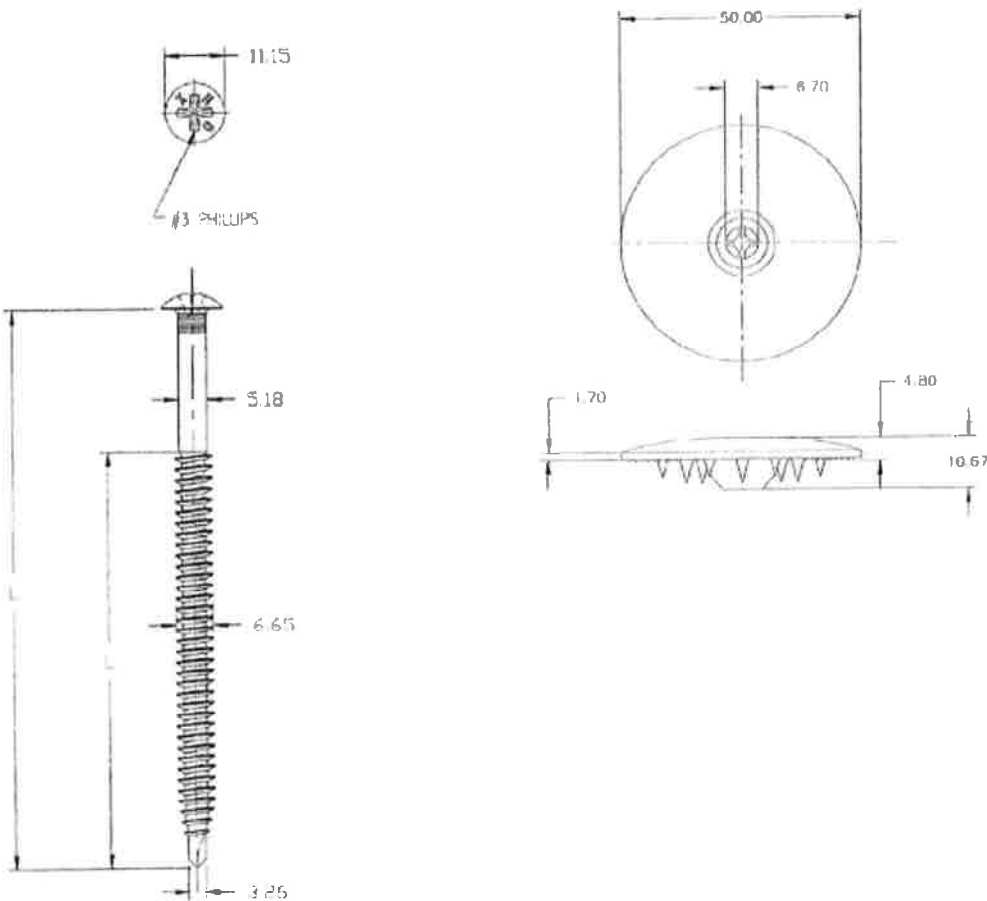
Annex42

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OMG Flat Roof Fasteners

OMG XHD

OMG 2” Plastic barbed Seam Plate



Combination 43

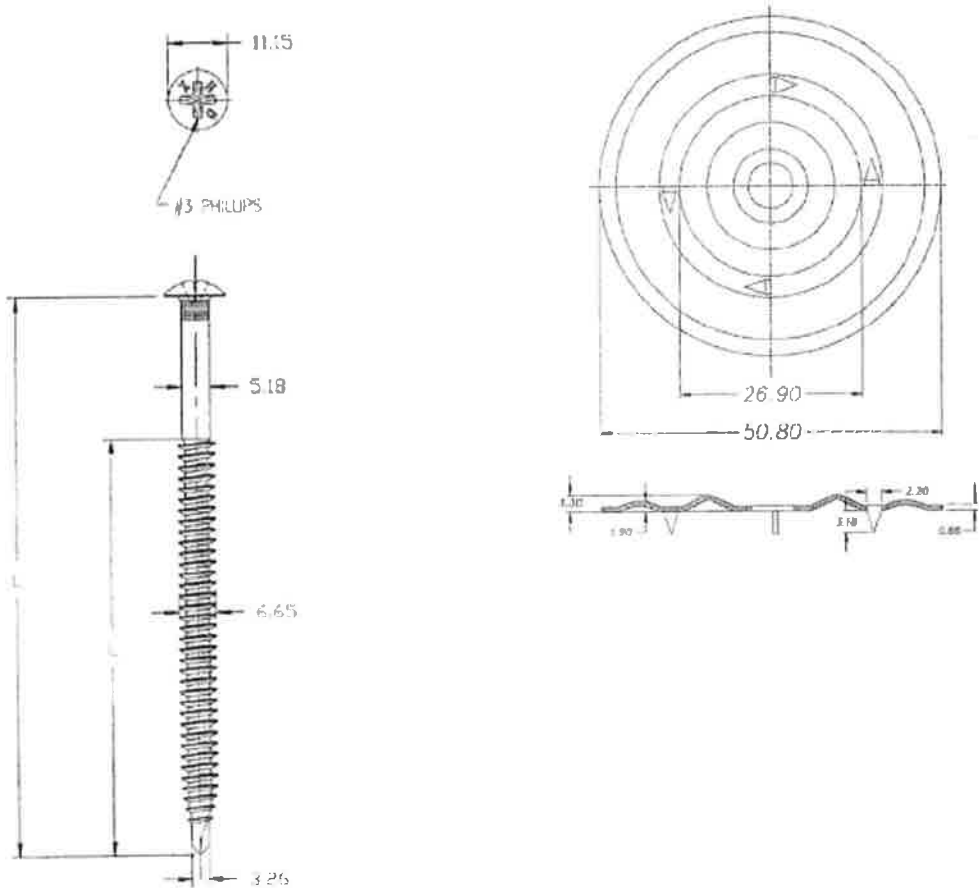
Annex 43

Of the European Technical Approval
ETA – 09/0337

OMG Flat Roof Fasteners

OMG XHD

OMG 2” Metal Barbed Seam Plate



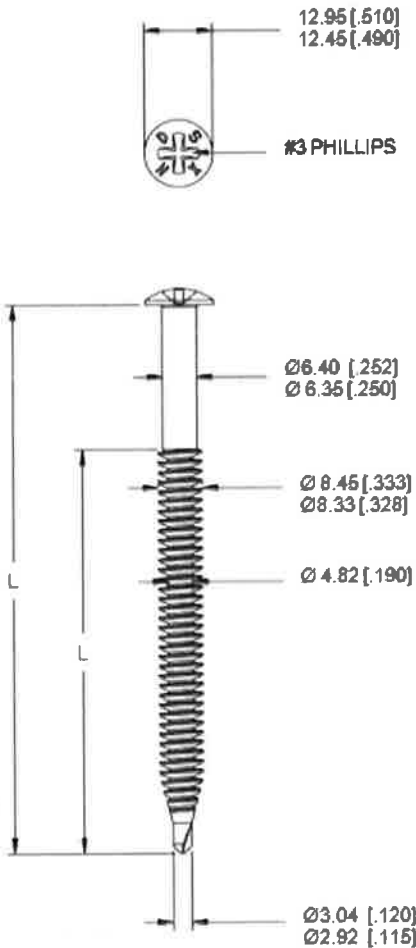
Combination 44

Annex 44

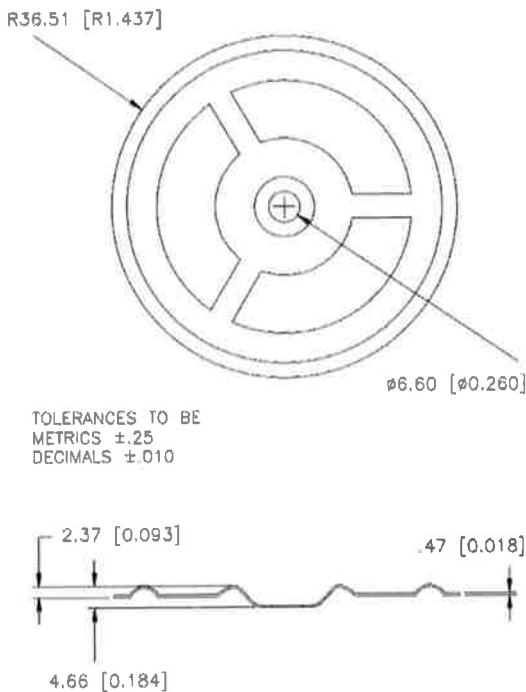
Of the European Technical Approval
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OMG Flat Roof Fasteners

OMG Super XHD



OMG 3" Ribbed Galvalume Insulation Plate



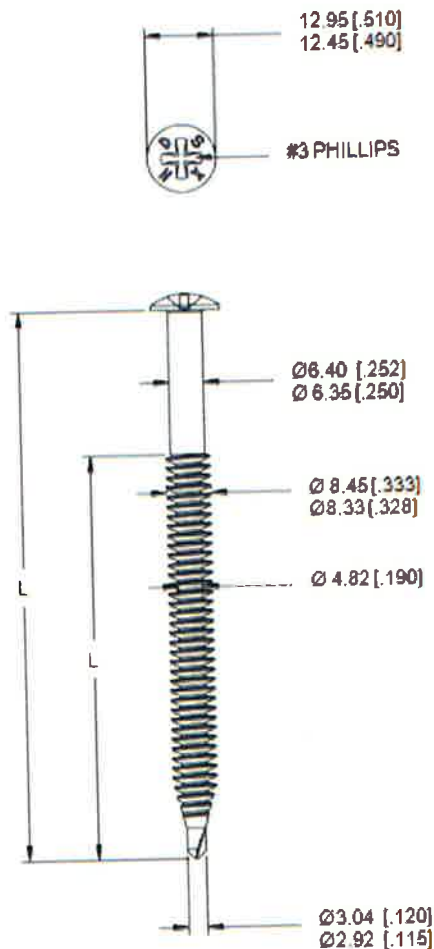
Combination 45

Annex 45

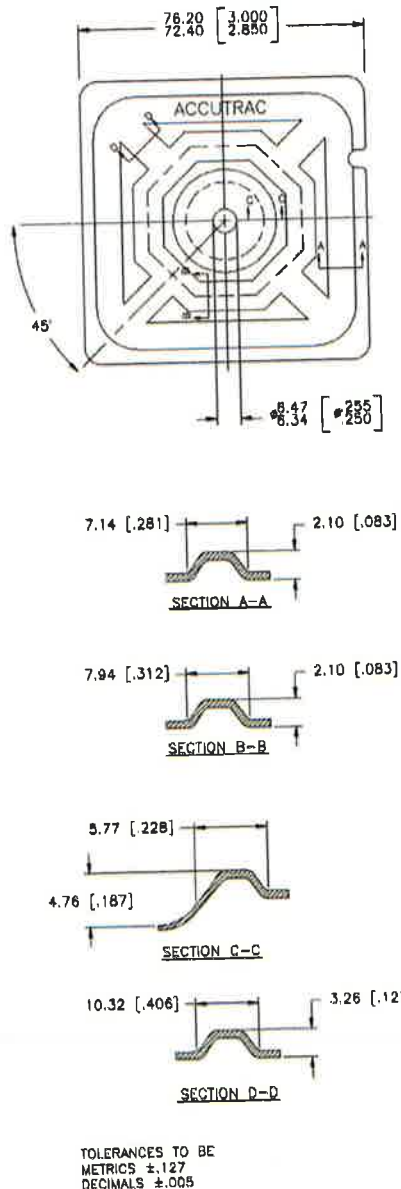
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OMG Flat Roof Fasteners

OMG Super XHD



OMG 3" AccuTrac plate

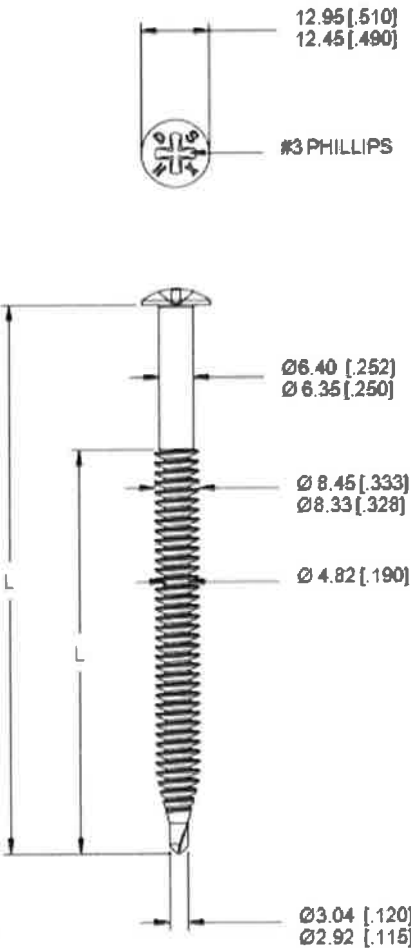


Combination 46

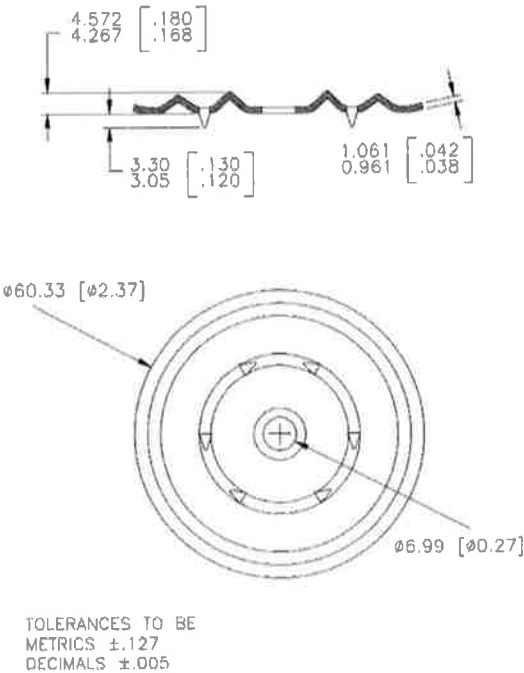
Annex 46
Of the European Technical Approval
ETA – 09/0337

OMG Flat Roof Fasteners

OMG Super XHD



OMG XHD barbed stress plate



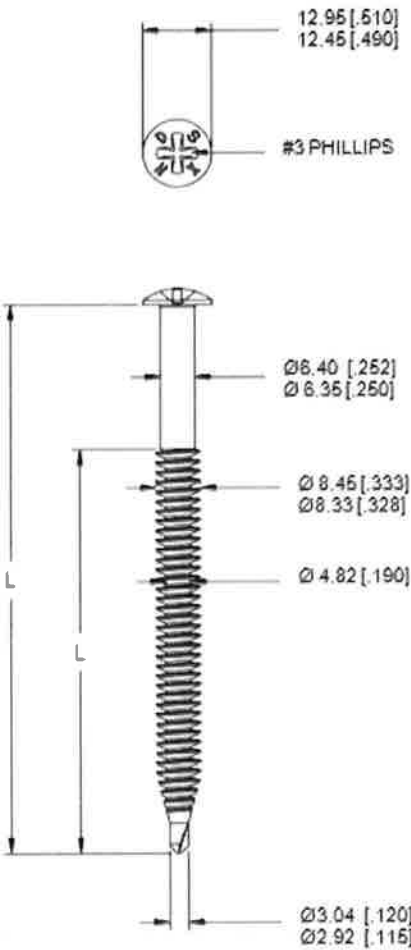
Combination 47

Annex 47

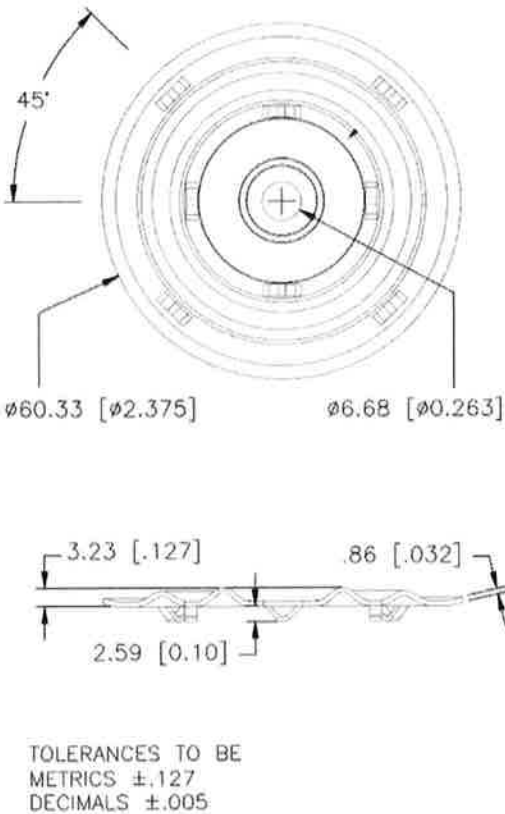
Of the European Technical Approval
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OMG Flat Roof Fasteners

OMG Super XHD



OMG Eyehook seam plate



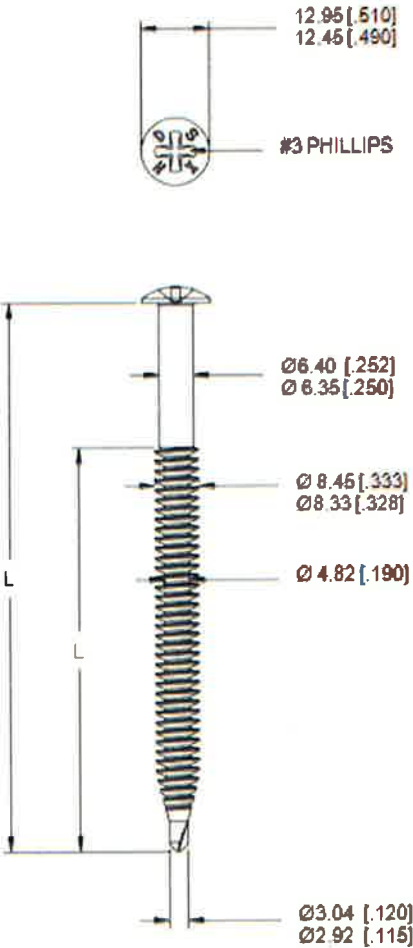
Combination 48

Annex 48

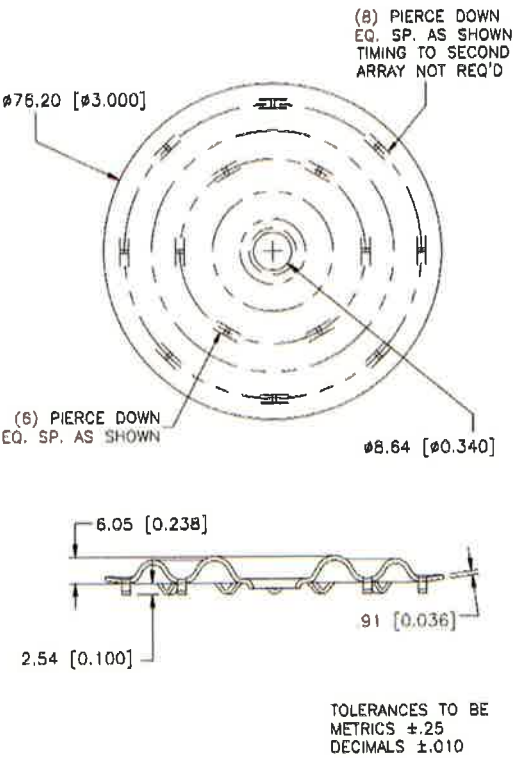
Of the European Technical Approval
ETA – 09/0337

OMG Flat Roof Fasteners

OMG Super XHD



OMG Maxload seam plate



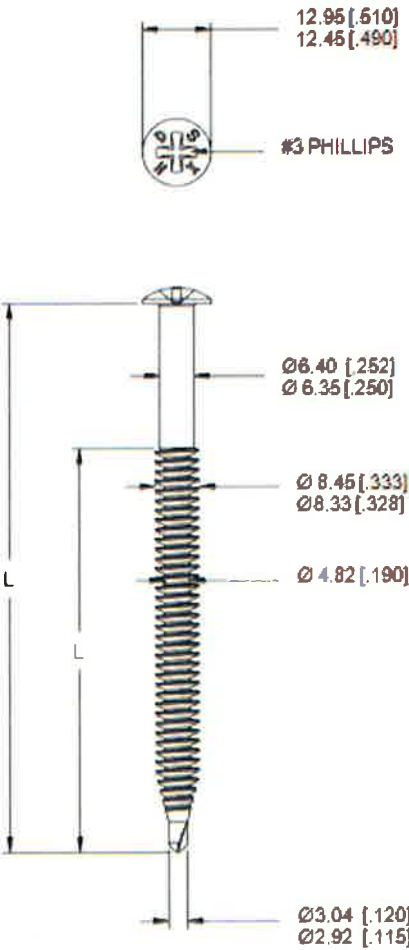
Combination 49

Annex 49

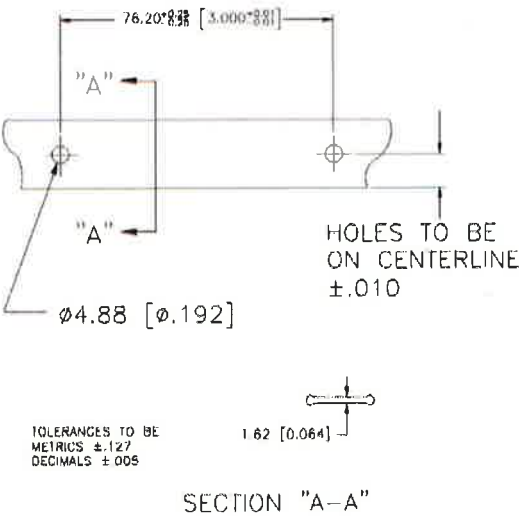
Of the European Technical Approval
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OMG Flat Roof Fasteners

OMG Super XHD



OMG 3/4" polymer batten strip

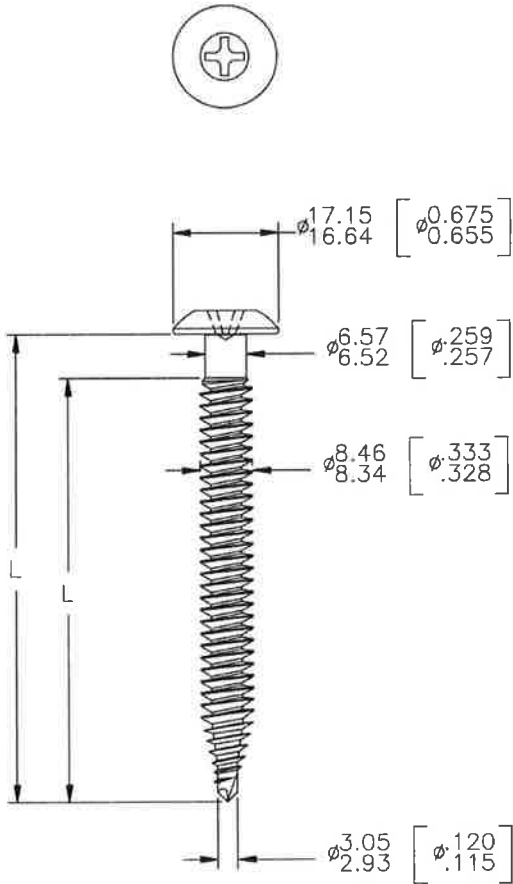
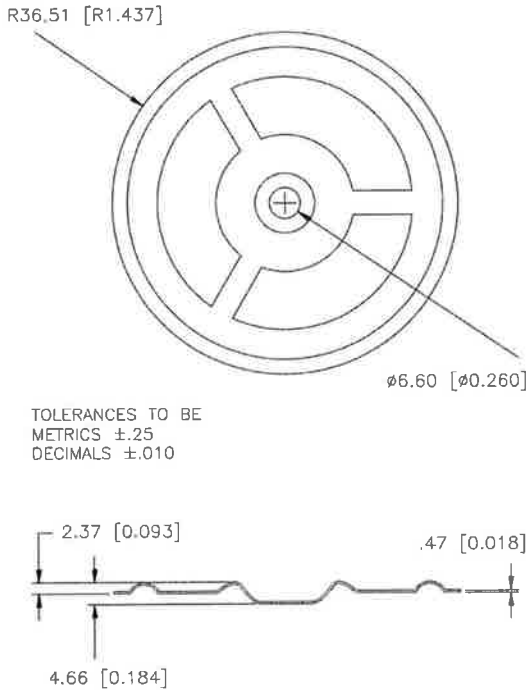


Combination 50

Annex 50

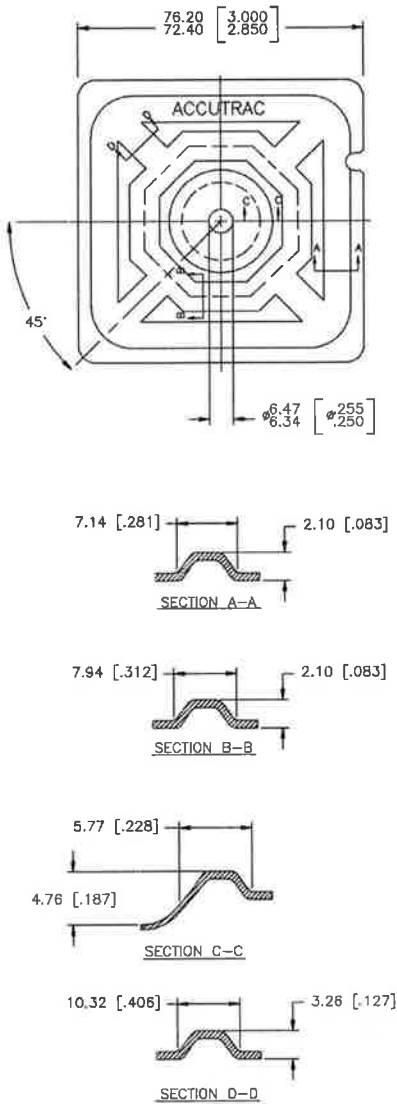
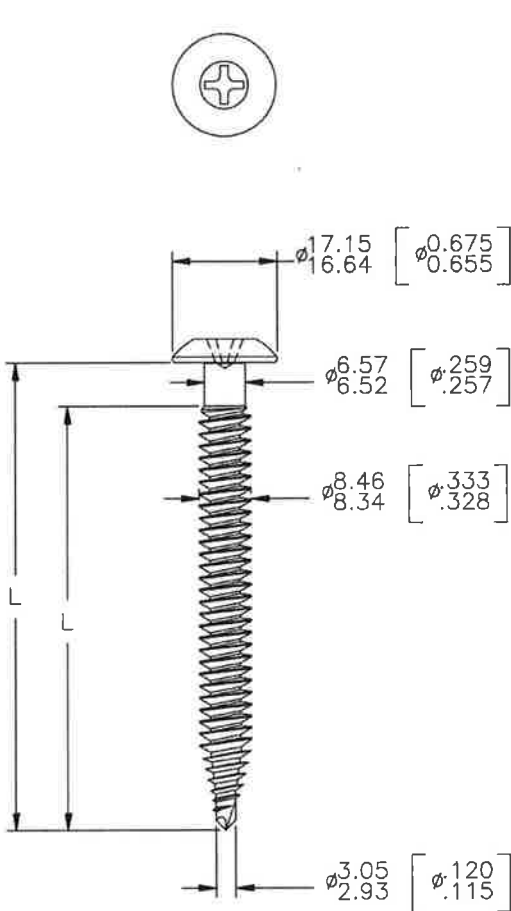
Of the European Technical Approval
ETA – 09/0337

OMG Flat Roof Fasteners

<div><div><div>OMG Maxload</div></div><div><div>OMG 3" Ribbed Galvalume Insulation Plate</div></div></div>	
<div>Combination 51</div>	<div>Annex 51</div> <div>Of the European Technical Approval</div> <div>ETA – 09/0337</div>
<div>OMG Flat Roof Fasteners</div>	

OMG Maxload

OMG 3" AccuTrac plate



TOLERANCES TO BE
METRICS ±.127
DECIMALS ±.005

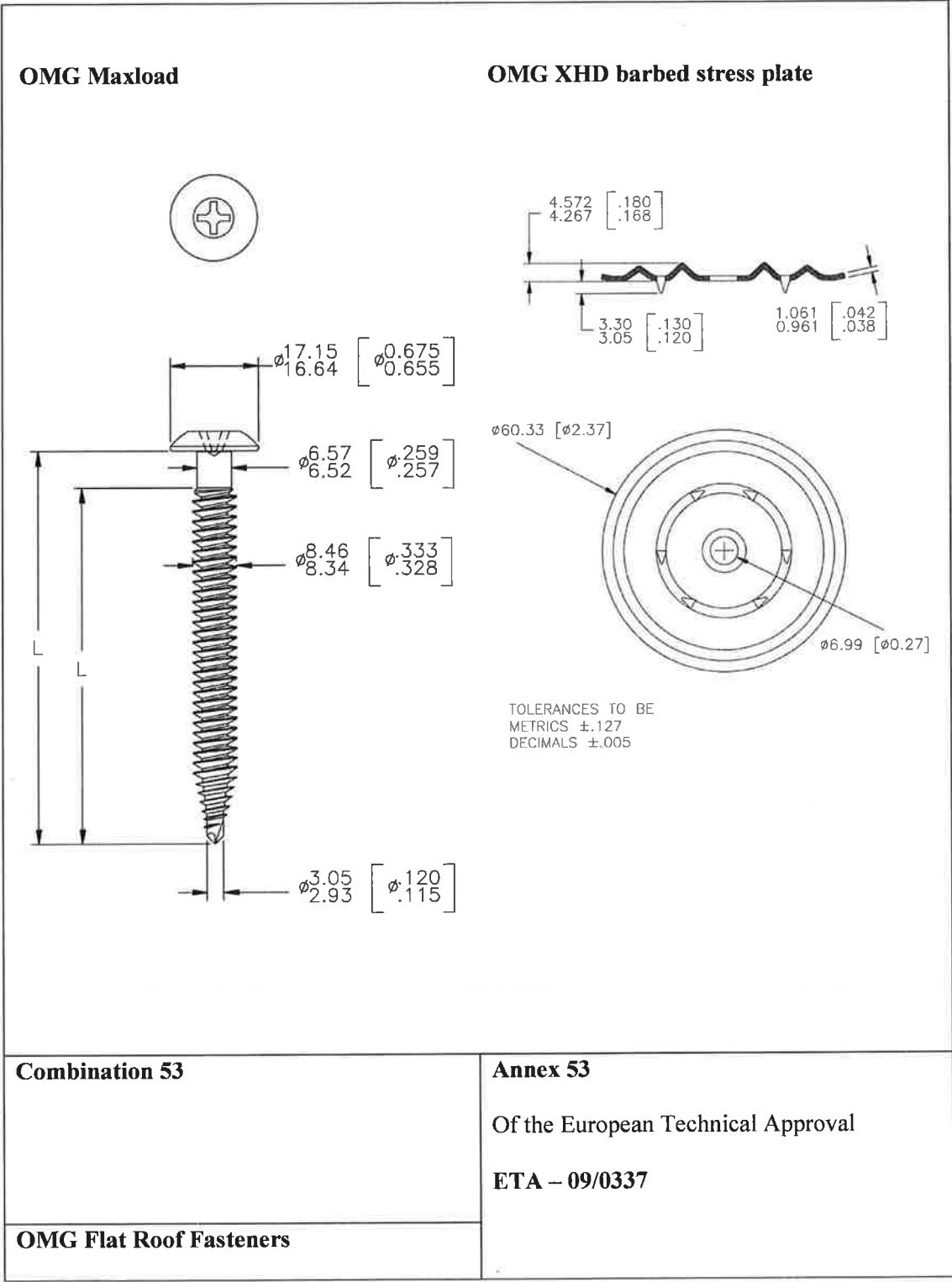
Combination 52

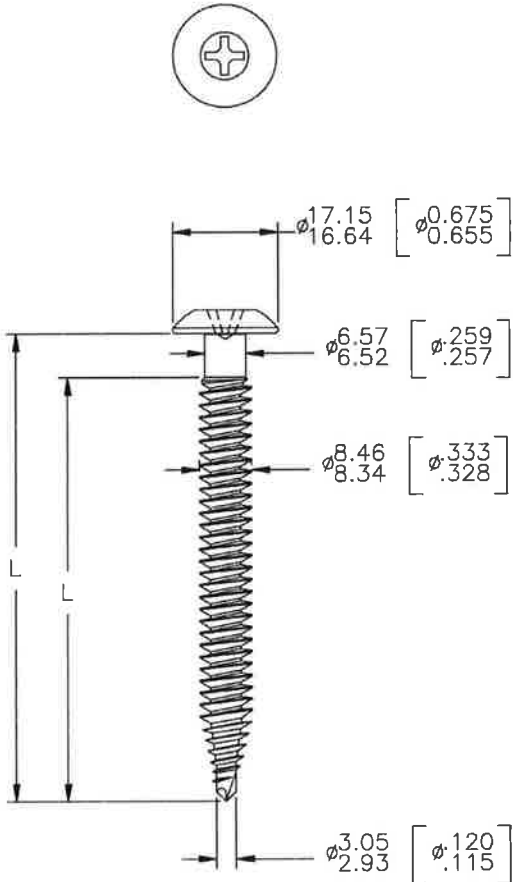
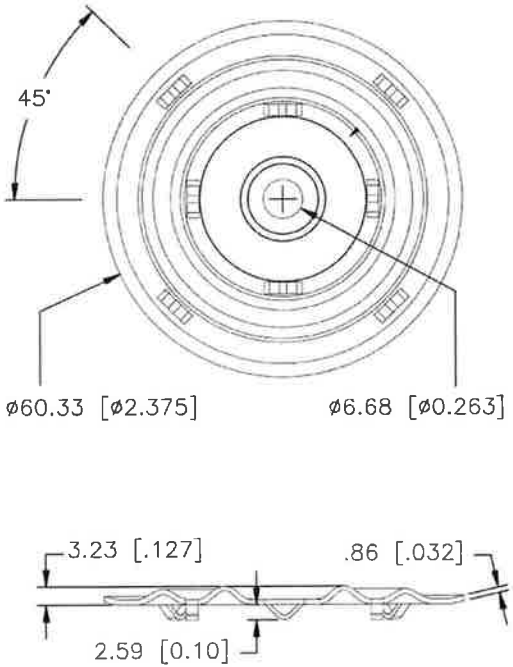
Annex 52

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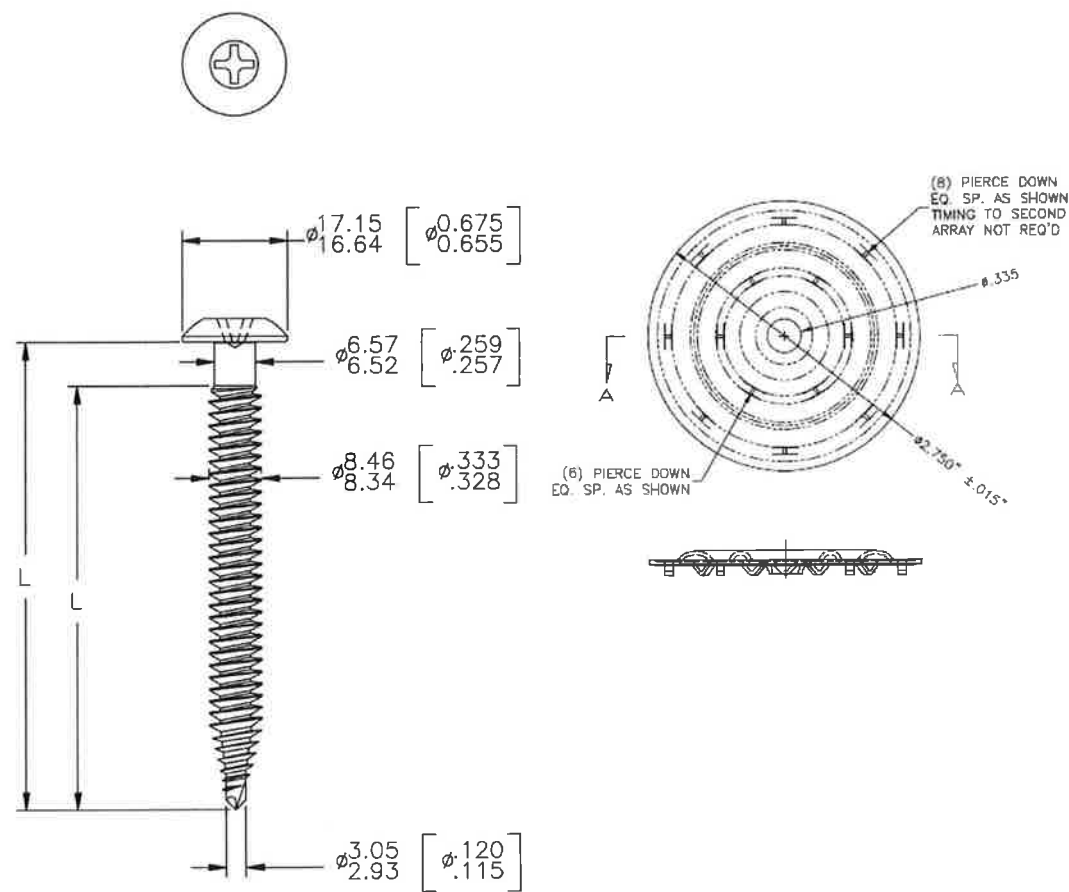
OMG Flat Roof Fasteners



<p>OMG Maxload</p> 	<p>OMG 2 3/8" Eyehook seam plate</p>  <p>TOLERANCES TO BE METRICS ±.127 DECIMALS ±.005</p>
<p>Combination 54</p> <p>OMG Flat Roof Fasteners</p>	<p>Annex 54</p> <p>Of the European Technical Approval</p> <p>ETA – 09/0337</p>

OMG Maxload

OMG 2 3/4" Eyehook seam plate



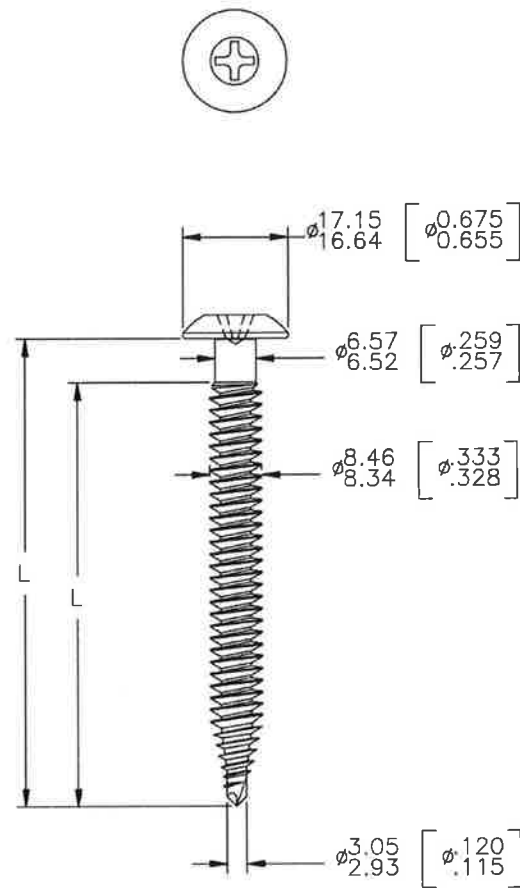
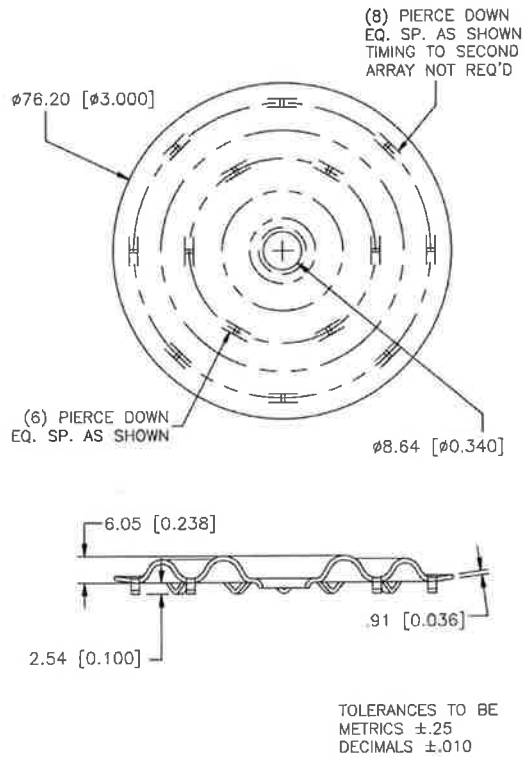
Combination 55

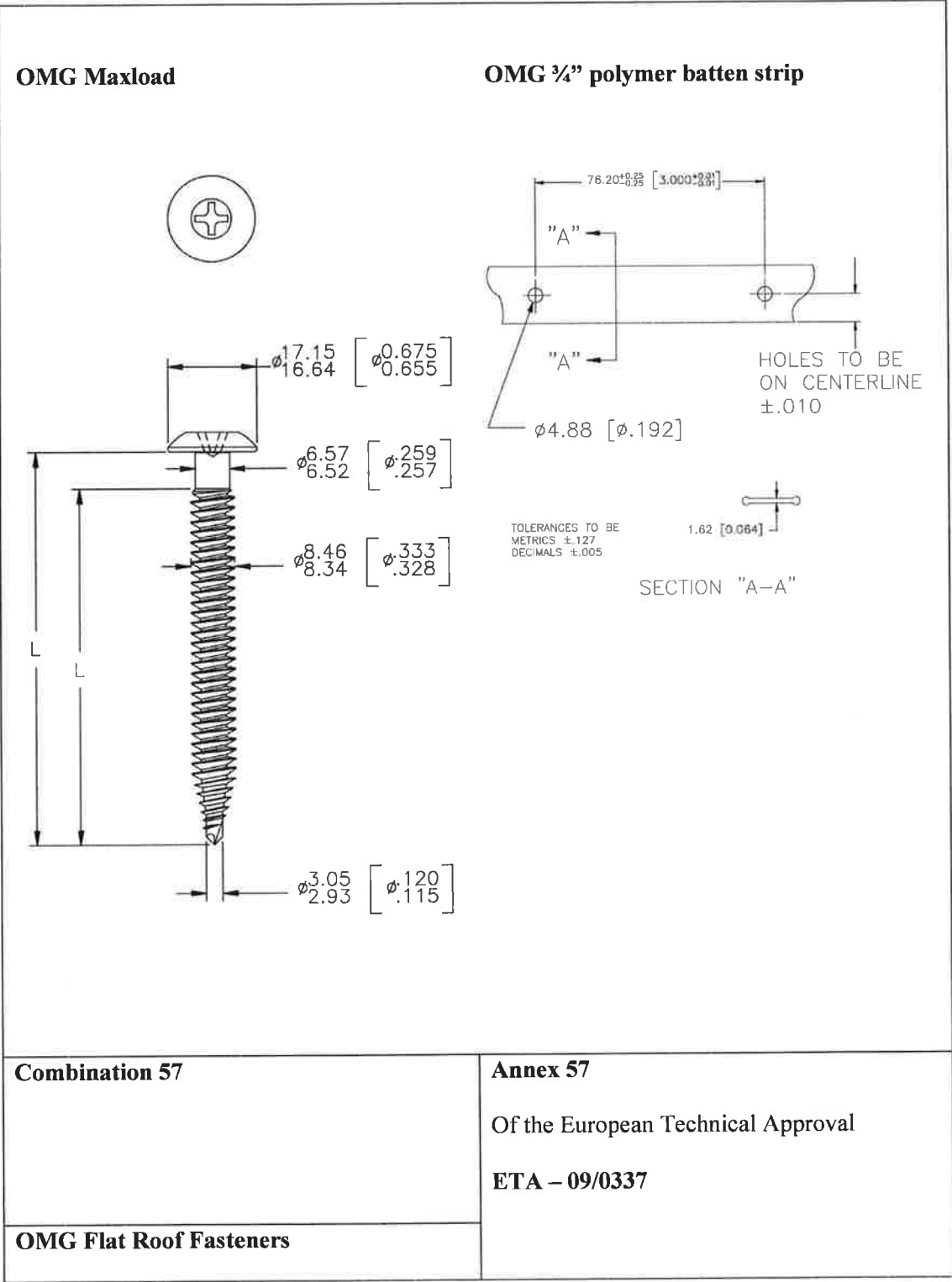
Annex 55

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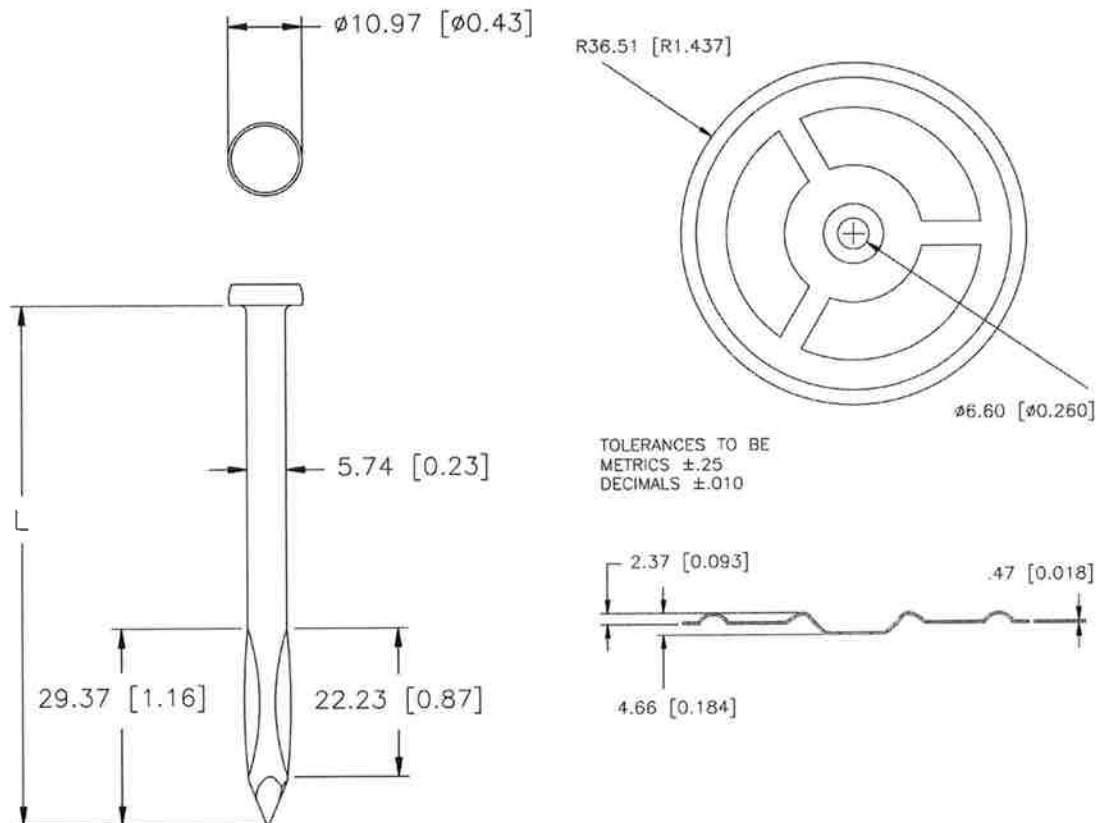
OMG Flat Roof Fasteners

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<div data-bbox="280 1541 479 1570">Combination 56</div> <div data-bbox="280 1738 604 1768">OMG Flat Roof Fasteners</div>	<div data-bbox="834 1541 1273 1696">Annex 56 Of the European Technical Approval ETA – 09/0337</div>



OMG CD-10

OMG 3" Ribbed Galvalume Insulation Plate



Combination 58

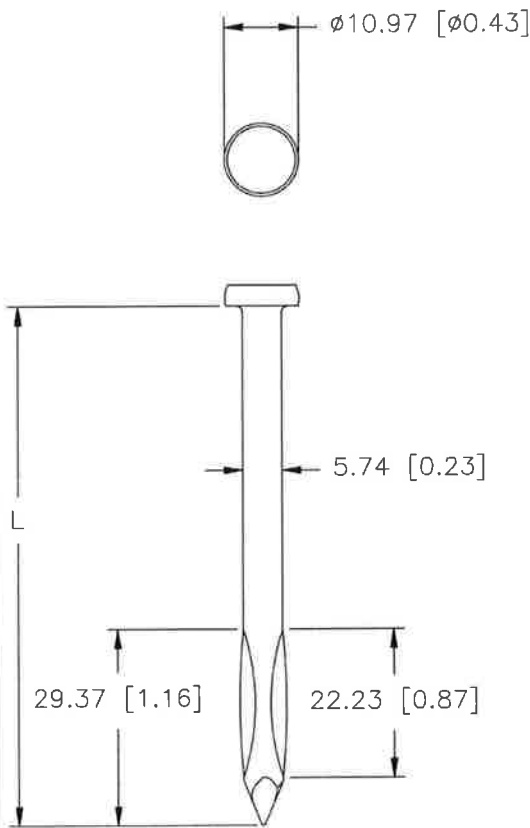
Annex 58

Of the European Technical Approval

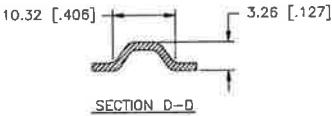
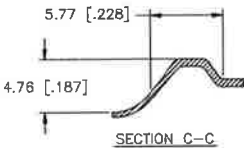
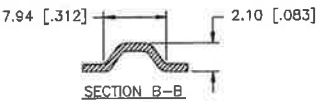
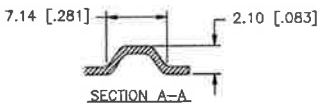
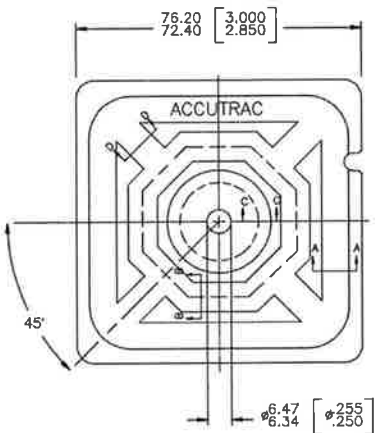
ETA - 09/0337

OMG Flat Roof Fasteners

OMG CD-10



OMG AccuTrac plate



TOLERANCES TO BE
METRICS $\pm .127$
DECIMALS $\pm .005$

Combination 59

Annex 59

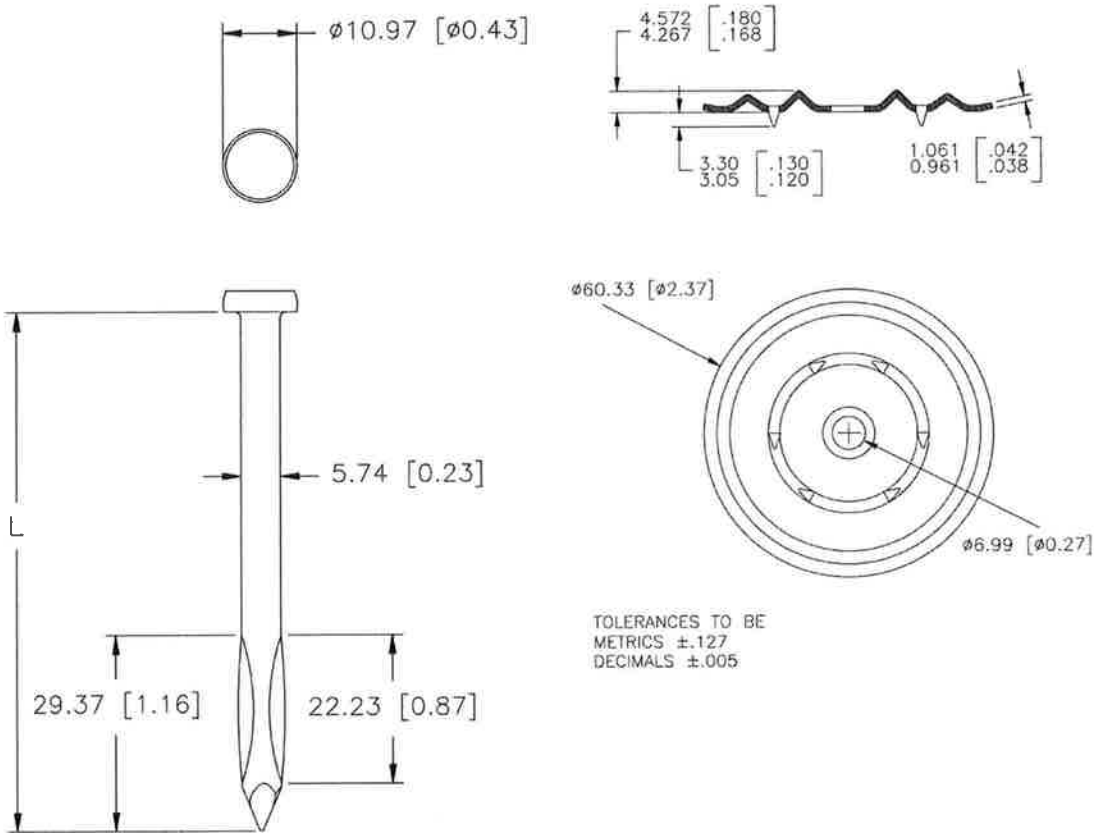
Of the European Technical Approval

OMG Flat Roof Fasteners

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OMG CD-10

OMG XHD barbed stress plate



Combination 60

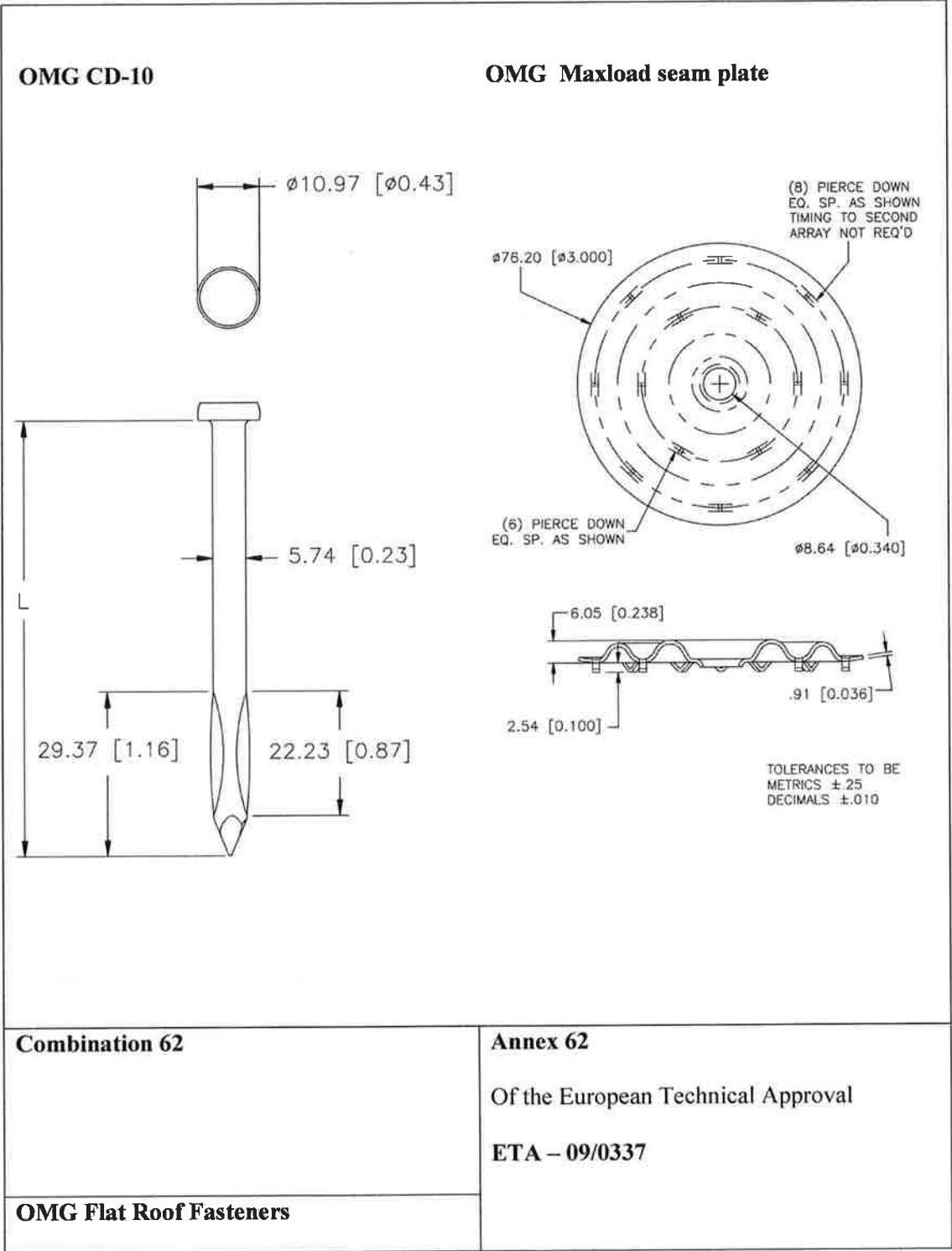
Annex 60

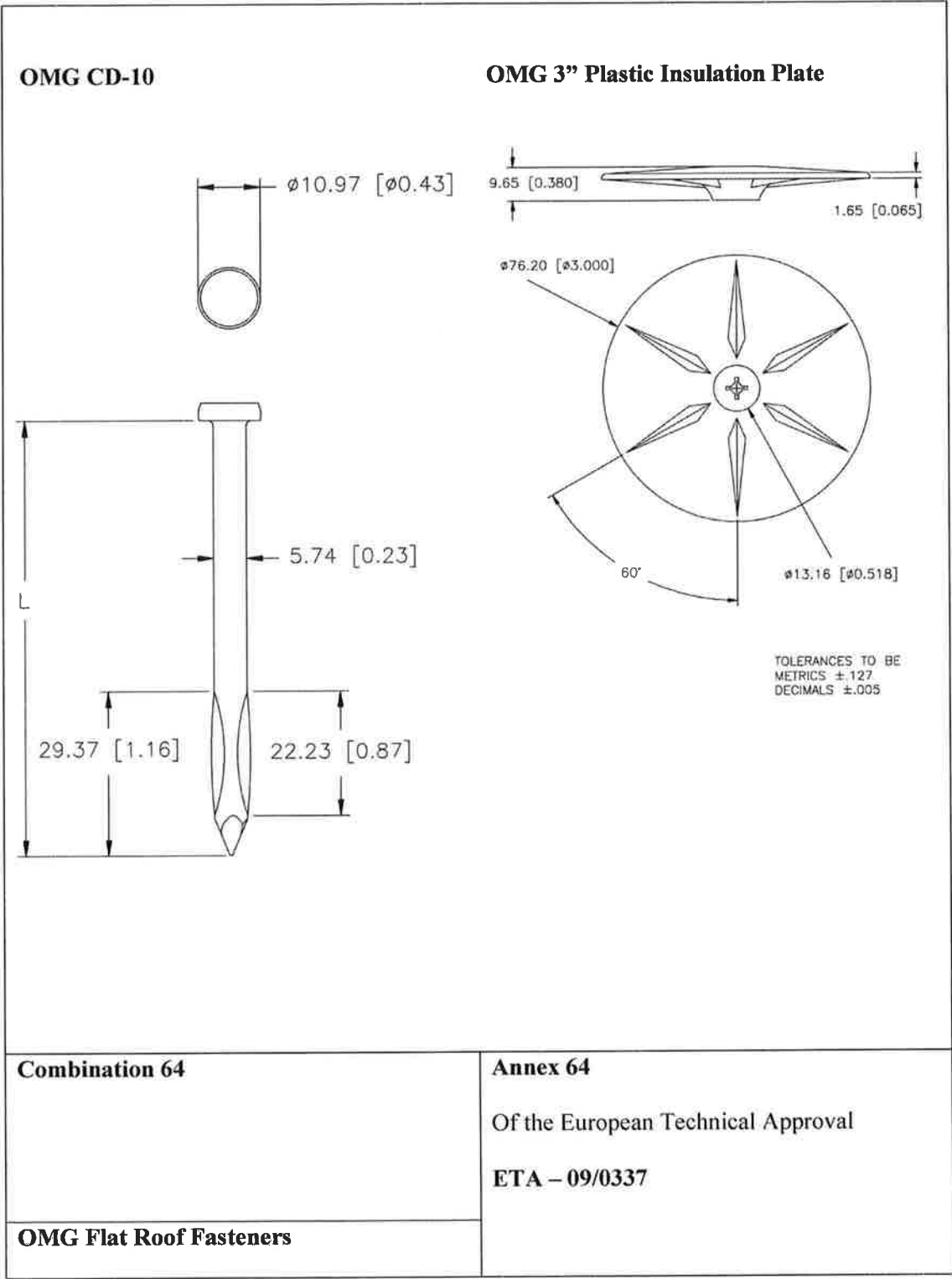
Of the European Technical Approval

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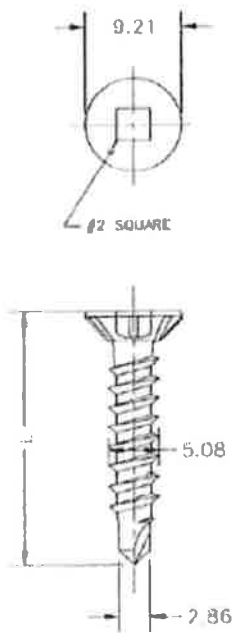
OMG Flat Roof Fasteners

<div><div><div>OMG CD-10</div><div></div></div><div><div>OMG Eyehook seam plate</div><div></div></div></div>	
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<div>OMG Flat Roof Fasteners</div>	

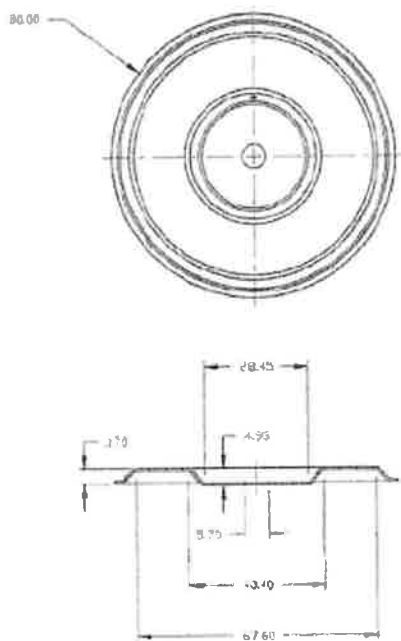




OMG SPF (Short)



OMG RhinoBond Plate



Combination 65

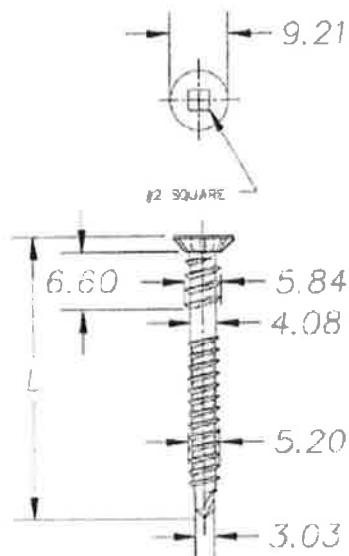
Annex 65

Of the European Technical Approval

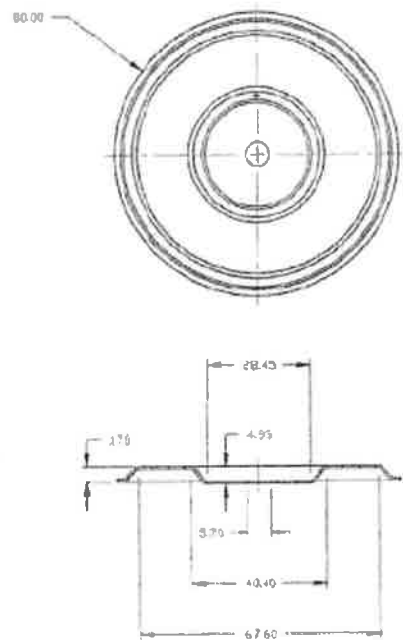
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OMG Flat Roof Fasteners

OMG SPF (Long)



OMG RhinoBond Plate



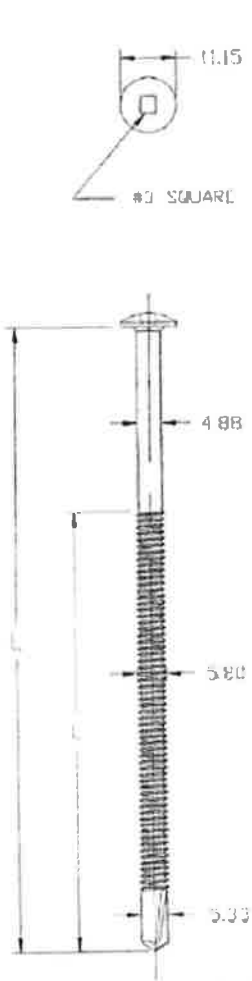
Combination 66

Annex 66

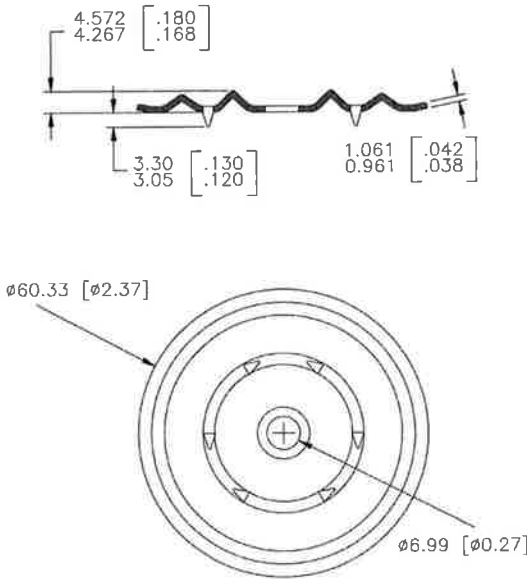
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OMG Flat Roof Fasteners

OMG RetroDriller



OMG XHD Barbed Stress Plate



TOLERANCES TO BE
METRICS ±.127
DECIMALS ±.005

Combination 67

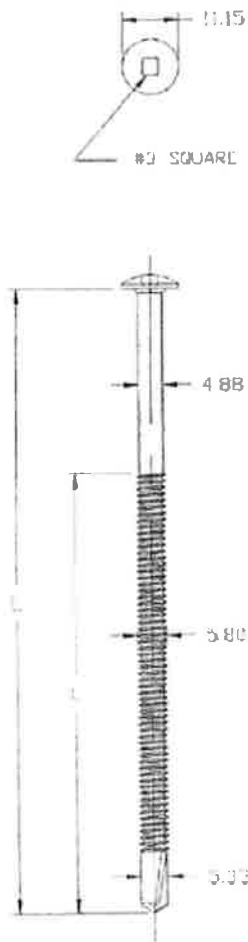
Annex 67

Of the European Technical Approval

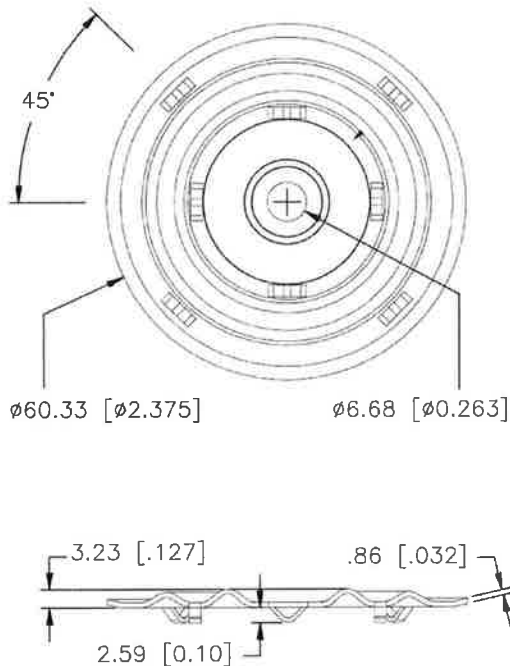
ETA – 09/0337

OMG Flat Roof Fasteners

OMG RetroDriller



OMG 2 3/8" Eyehook Seam Plate



TOLERANCES TO BE
METRICS ±.127
DECIMALS ±.005

Combination 68

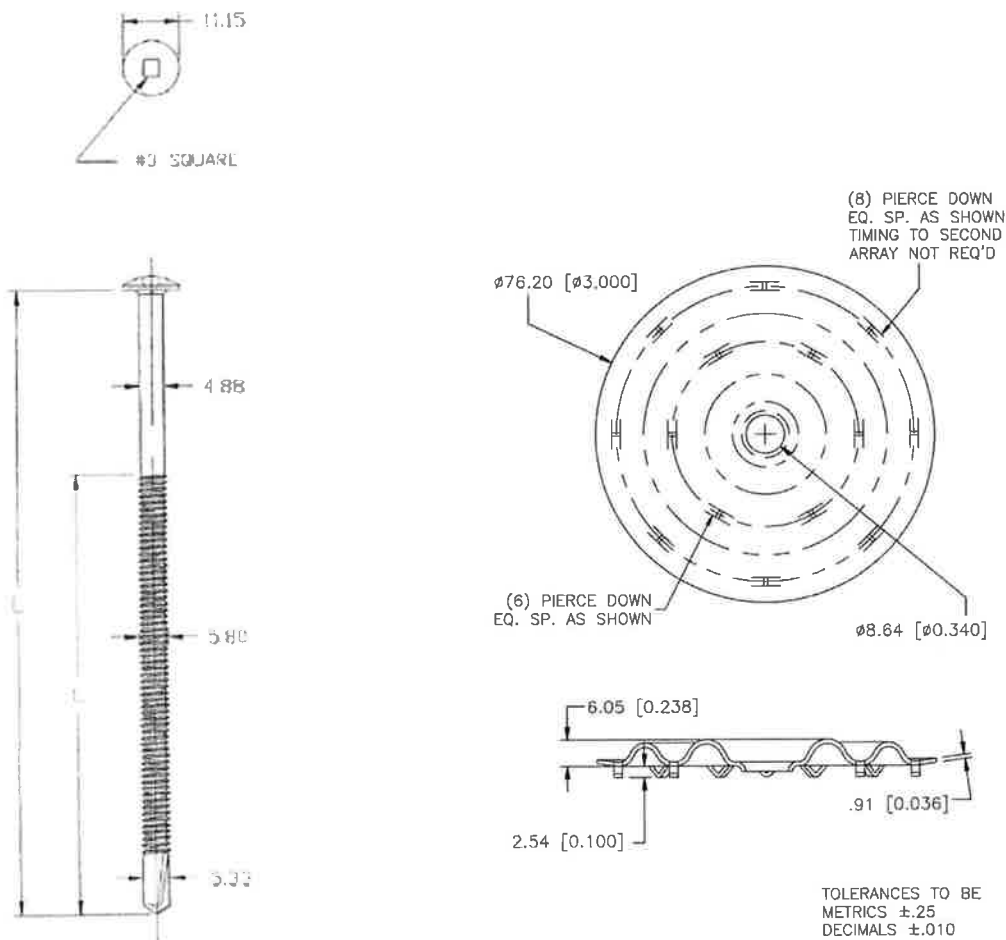
Annex 68

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OMG Flat Roof Fasteners

OMG RetroDriller

OMG Maxload seam Plate



Combination 69

Annex 69

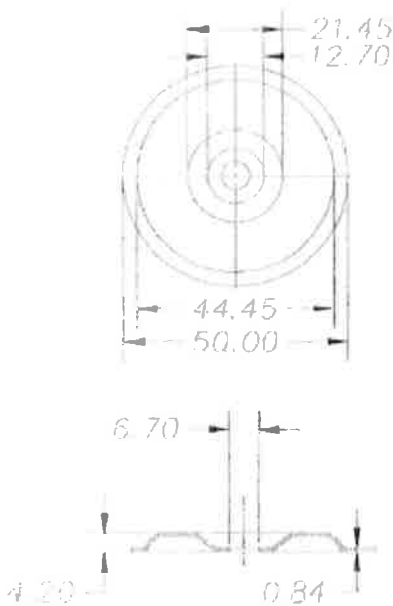
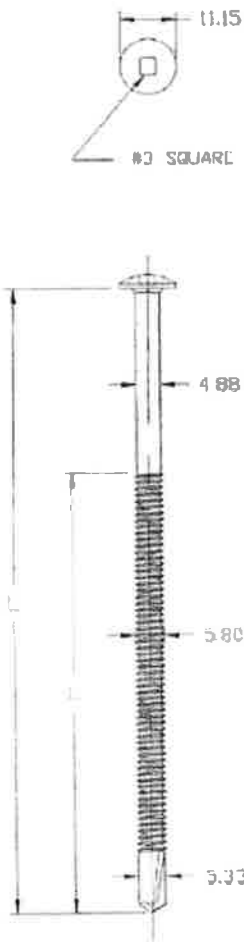
Of the European Technical Approval

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OMG Flat Roof Fasteners

OMG RetroDriller

OMG 2" Metal Seam Plate



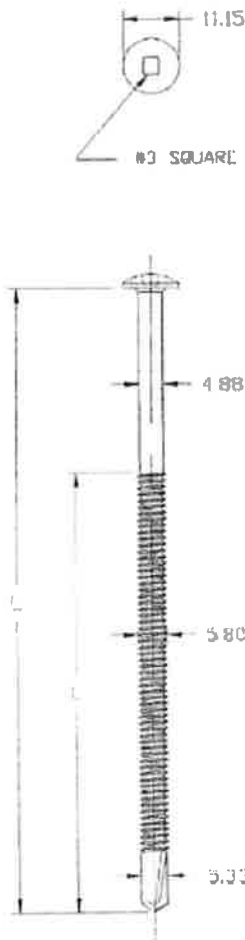
Combination 70

Annex 70

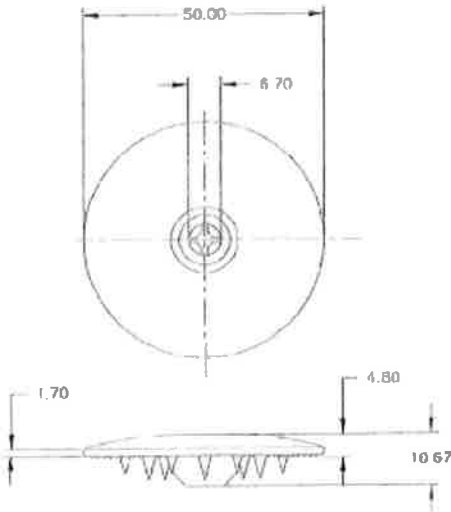
Of the European Technical Approval
ETA – 09/0337

OMG Flat Roof Fasteners

OMG RetroDriller



OMG 2" Plastic Seam Plate



Combination 71

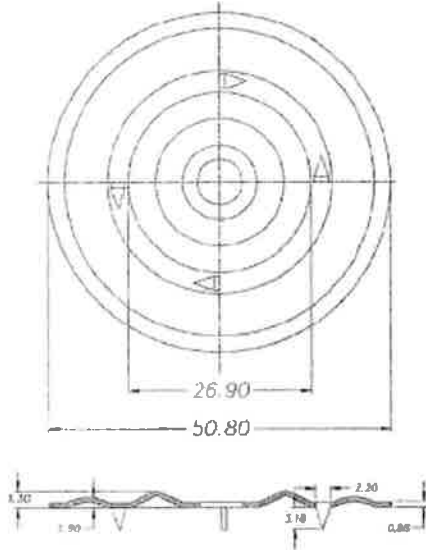
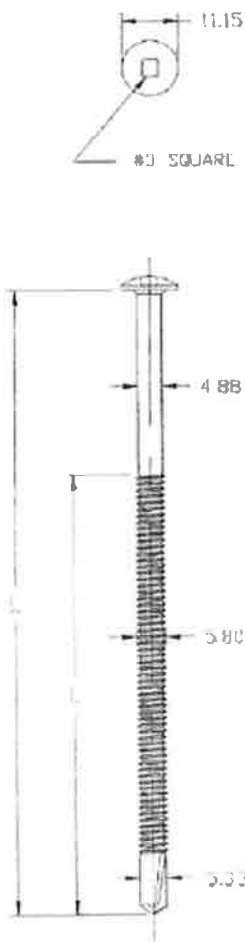
Annex 71

Of the European Technical Approval
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OMG Flat Roof Fasteners

OMG RetroDriller

OMG 2” Metal Barbed Seam Plate

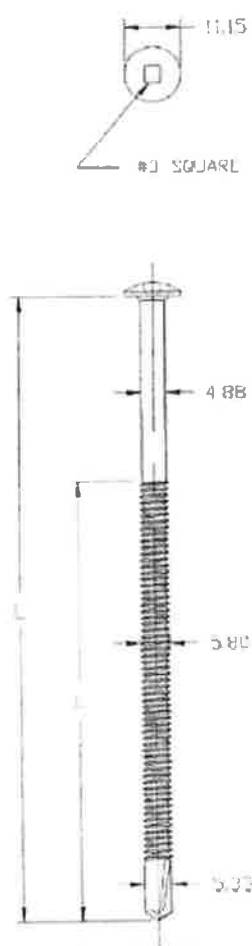
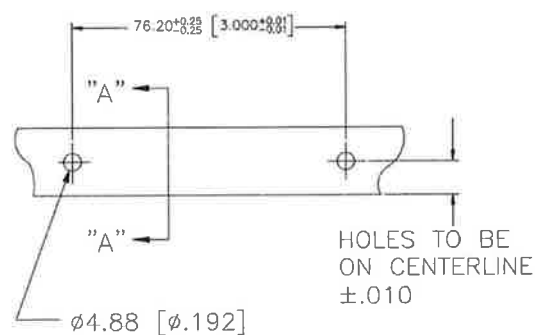


Combination 72

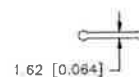
Annex 72

Of the European Technical Approval
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OMG Flat Roof Fasteners

OMG RetroDriller**OMG 3/4" polymer batten strip**

TOLERANCES TO BE
METRICS ± 0.127
DECIMALS ± 0.005



SECTION "A-A"

Combination 73

Annex 73

Of the European Technical Approval

ETA – 09/0337

OMG Flat Roof Fasteners

Characteristic Values of Axial Load Resistance (kN)					
Annex	OMG Roof Fastener Combination		Substrate Steel – 0.7mm thick S280GD to EN 10326 Plywood – t ≥ 19mm exterior grade to EN 636 Concrete – 100mm thick C25/30 to EN 206-1		
	Screw	Washer / Linear Fastener	Steel	Plywood	Concrete
1	#12 Standard Roofgrip	3" ribbed galvalume	0.72	1.27	-
2		AccuTrac plate	0.72	1.27	-
3		3" plastic plate	0.72	1.27	-
4		2" metal Seam plate	0.72	1.27	-
5		2" Plastic Barbed Seam Plate	0.72	1.27	-
6		2" metal barbed seam plate	0.72	1.27	-
7	#12 Standard Roofgrip Drill point	3" ribbed galvalume	1.05	1.41	-
8		AccuTrac plate	1.05	1.41	-
9		3" plastic plate	1.05	1.41	-
10		XHD barbed plate	1.05	1.41	-
11		2 ^{3/8} " Eyehook seam plate	1.05	1.41	-
12		3/4" polymer batten strip	1.05	1.41	-
13		2" metal Seam plate	1.05	1.41	-
14		2" Plastic Barbed Seam Plate	1.05	1.41	-
15	#14 Heavy Duty	2" metal barbed seam plate	1.05	1.41	-
16		3" ribbed galvalume	0.56	1.60	3.01
17		AccuTrac plate	0.56	1.60	2.81
18		2 ^{3/8} " Eyehook seam plate	0.56	1.60	3.97
19		3" Maxload seam plate	0.56	1.60	3.97
20		3/4" polymer batten strip	0.56	1.60	2.59
21		3" plastic plate	0.56	1.60	1.75
22		2" metal Seam plate	0.56	1.60	3.97
23		2" Plastic Barbed Seam Plate	0.56	1.60	3.25
24	#15 Roofgrip	2" metal barbed seam plate	0.56	1.60	3.97
25		3" ribbed galvalume	1.42	1.57	1.40
26		AccuTrac plate	1.42	1.57	1.40
27		2 ^{3/8} " Eyehook seam plate	1.42	1.57	1.40
28		2 ^{3/4} " Eyehook seam plate	1.42	1.57	1.40
29		Maxload seam plate	1.42	1.57	1.40
30		3/4" polymer batten strip	1.42	1.57	1.40
31		3" plastic plate	1.42	1.50	1.40
32		2" metal Seam plate	1.42	1.57	1.40
33		2" Plastic Barbed Seam Plate	1.42	1.57	1.40
34	XHD	2" metal barbed seam plate	1.42	1.57	1.40
35		3" ribbed galvalume	1.42	1.57	-
36		AccuTrac plate	1.42	1.57	-
37		XHD barbed plate	1.42	1.57	-
38		2 ^{3/8} " Eyehook seam plate	1.42	1.57	-
39		Maxload seam plate	1.42	1.57	-
40		3/4" polymer batten strip	1.42	1.57	-
41		3" plastic plate	1.42	1.50	-
42		2" metal Seam plate	1.42	1.57	-

Characteristic Values of Axial Load Resistance (kN)					
Annex	OMG Roof Fastener Combination		Substrate Steel – 0.7mm thick S280GD to EN 10326 Plywood – t ≥ 19mm exterior grade to EN 636 Concrete – 100mm thick C25/30 to EN 206-1		
	Screw	Washer / Linear Fastener	Steel	Plywood	Concrete
43		2" Plastic Barbed Seam Plate	1.42	1.57	-
44		2" metal barbed seam plate	1.42	1.57	-
45	Super XHD	3" ribbed galvalume	1.53	3.44	-
46		AccuTrac plate	1.53	3.24	-
47		XHD barbed plate	1.53	3.44	-
48		2 ³ / ₈ " Eyehook seam plate	1.53	3.44	-
49		Maxload seam plate	1.53	3.44	-
50		³ / ₄ " polymer batten strip	1.53	2.34	-
51	Maxload	3" ribbed galvalume	1.77	2.13	-
52		AccuTrac plate	1.77	2.13	-
53		XHD barbed plate	1.77	2.13	-
54		2 ³ / ₈ " Eyehook seam plate	1.77	2.13	-
55		2 ³ / ₄ " Eyehook seam plate	1.77	2.13	-
56		Maxload seam plate	1.77	2.13	-
57		³ / ₄ " polymer batten strip	1.77	2.13	-
58	CD-10	3" ribbed galvalume	-	-	2.60
59		AccuTrac plate	-	-	2.24
60		XHD barbed plate	-	-	2.67
61		2 ³ / ₈ " Eyehook seam plate	-	-	2.67
62		Maxload seam plate	-	-	2.67
63		³ / ₄ " polymer batten strip	-	-	1.73
64		3" plastic plate	-	-	1.56
65	SPF short	RhinoBond plate	1.09*	1.37*	-
66	SPF long	RhinoBond plate	1.12*	1.73*	-
	OMG Roof Fastener Combination		Substrate Steel – 1.2mm thick S280GD to EN 10326		
67	RetroDriller	XHD barbed plate	1.86	-	-
68		2 ³ / ₈ " Eyehook seam plate	1.86	-	-
69		Maxload Seam Plate	1.86	-	-
70		2" metal Seam plate	1.86	-	-
71		2" Plastic Barbed Seam Plate	1.86	-	-
72		2" metal barbed seam plate	1.86	-	-
73		³ / ₄ " polymer batten strip	1.86	-	-
Characteristic Values of Axial Load Resistance			Annex 74		
			Of the European Technical Approval		
OMG Flat Roof Fasteners			ETA 09/0337		

Note* Use of the SPF fasteners requires minimum 1.25mm steel substrate due to unwinding characteristic (section 2.5).

Mean Values of Axial Load Resistance (kN)					
Annex	OMG Roof Fastener Combination		Substrate Steel – 0.7mm thick S280GD to EN 10326 Plywood – t ≥ 19mm exterior grade to EN 636 Concrete – 100mm thick C25/30 to EN 206-1		
	Screw	Washer / Linear Fastener	Steel	Plywood	Concrete
1	#12 Standard Roofgrip	3" ribbed galvalume	0.88	2.85	-
2		AccuTrac plate	0.88	2.85	-
3		3" plastic plate	0.88	1.78	-
4		2" metal Seam plate	0.88	2.85	-
5		2" Plastic Barbed Seam Plate	0.88	2.85	-
6		2" metal barbed seam plate	0.88	2.85	-
7	#12 Standard Roofgrip Drill point	3" ribbed galvalume	1.19	1.96	-
8		AccuTrac plate	1.19	1.96	-
9		3" plastic plate	1.19	1.78	-
10		XHD barbed plate	1.19	1.96	-
11		2 ³ / ₈ " Eyehook seam plate	1.19	1.96	-
12		3 ³ / ₄ " polymer batten strip	1.19	1.96	-
13		2" metal Seam plate	1.19	1.96	-
14		2" Plastic Barbed Seam Plate	1.19	1.96	-
15		2" metal barbed seam plate	1.19	1.96	-
16	#14 Heavy Duty	3" ribbed galvalume	0.79	2.78	3.26
17		AccuTrac plate	0.79	2.78	2.93
18		2 ³ / ₈ " Eyehook seam plate	0.79	2.78	4.75
19		3" Maxload seam plate	0.79	2.78	4.75
20		3 ³ / ₄ " polymer batten strip	0.79	2.78	2.78
21		3" plastic plate	0.79	1.88	1.88
22		2" metal Seam plate	0.79	2.78	4.75
23		2" Plastic Barbed Seam Plate	0.79	2.78	3.51
24		2" metal barbed seam plate	0.79	2.78	4.75
25	#15 Roofgrip	3" ribbed galvalume	1.61	2.04	2.94
26		AccuTrac plate	1.61	2.04	2.93
27		2 ³ / ₈ " Eyehook seam plate	1.61	2.04	2.93
28		2 ³ / ₄ " Eyehook seam plate	1.61	2.04	2.93
29		Maxload seam plate	1.61	2.04	2.93
30		3 ³ / ₄ " polymer batten strip	1.61	2.04	2.78
31		3" plastic plate	1.61	1.72	1.72
32		2" metal Seam plate	1.61	2.04	2.94
33		2" Plastic Barbed Seam Plate	1.61	2.04	2.94
34		2" metal barbed seam plate	1.61	2.04	2.94
35	XHD	3" ribbed galvalume	1.61	2.04	-
36		AccuTrac plate	1.61	2.04	-
37		XHD barbed plate	1.61	2.04	-
38		2 ³ / ₈ " Eyehook seam plate	1.61	2.04	-
39		Maxload seam plate	1.61	2.04	-
40		3 ³ / ₄ " polymer batten strip	1.61	2.04	-
41		3" plastic plate	1.61	1.72	-

Mean Values of Axial Load Resistance (kN)					
Annex	OMG Roof Fastener Combination		Substrate Steel – 0.7mm thick S280GD to EN 10326 Plywood – t ≥ 19mm exterior grade to EN 636 Concrete – 100mm thick C25/30 to EN 206-1		
	Screw	Washer / Linear Fastener	Steel	Plywood	Concrete
42		2" metal Seam plate	1.61	2.04	-
43		2" Plastic Barbed Seam Plate	1.61	2.04	-
44		2" metal barbed seam plate	1.61	2.04	-
45	Super XHD	3" ribbed galvalume	1.80	4.06	-
46		AccuTrac plate	1.80	3.43	-
47		XHD barbed plate	1.80	4.06	-
48		2 ^{3/8} " Eyehook seam plate	1.80	4.06	-
49		Maxload seam plate	1.80	4.06	-
50		3/4" polymer batten strip	1.80	2.79	-
51	Maxload	3" ribbed galvalume	2.19	3.92	-
52		AccuTrac plate	2.19	3.43	-
53		XHD barbed plate	2.19	3.92	-
54		2 ^{3/8} " Eyehook seam plate	2.19	3.92	-
55		2 ^{3/4} " Eyehook seam plate	2.19	3.92	-
56		Maxload seam plate	2.19	3.92	-
57		3/4" polymer batten strip	2.19	3.92	-
58	CD-10	3" ribbed galvalume	-	-	2.90
59		AccuTrac plate	-	-	2.35
60		XHD barbed plate	-	-	3.87
61		2 ^{3/8} " Eyehook seam plate	-	-	3.87
62		Maxload seam plate	-	-	3.87
63		3/4" polymer batten strip	-	-	2.17
64		3" plastic plate	-	-	1.74
65	SPF short	RhinoBond plate	1.17	1.67	-
66	SPF long	RhinoBond plate	1.25	2.17	-
Annex	OMG Roof Fastener Combination		Substrate Steel – 1.20mm thick S280GD to EN 10326		
	Screw	Washer / Linear Fastener	Steel	Plywood	Concrete
67	RetroDriller	XHD barbed plate	2.03	-	-
68		2 ^{3/8} " Eyehook seam plate	2.03	-	-
69		Maxload Seam Plate	2.03	-	-
70		2" metal Seam plate	2.03	-	-
71		2" Plastic Barbed Seam Plate	2.03	-	-
72		2" metal barbed seam plate	2.03	-	-
73		3/4" polymer batten strip	2.03	-	-
Mean Values of Axial Load Resistance			Annex 75		
OMG Flat Roof Fasteners			Of the European Technical Approval		
			ETA 09/0337		