

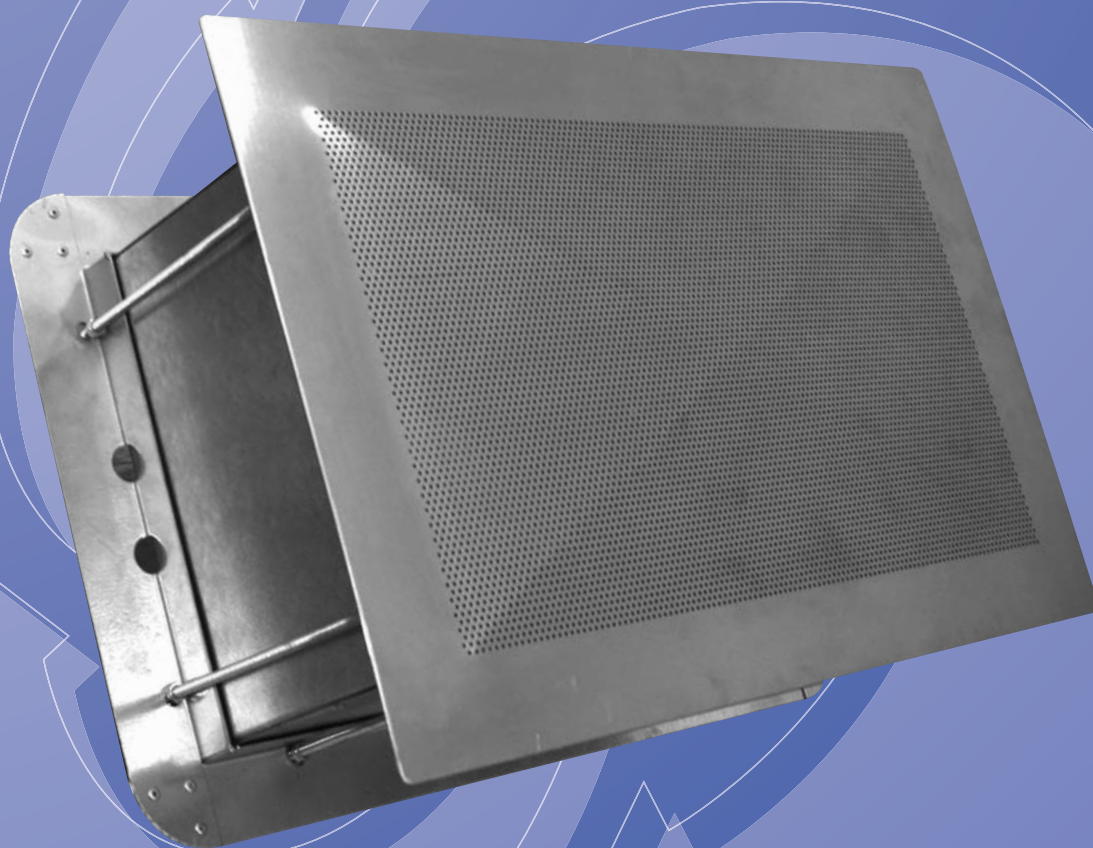
SERIES GP

Security Grilles

PUBLICATION

GRILLES 10

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Features

- Robust 2mm Thick Stainless Steel Fascia.
- Available for Air Supply, Air Extract or Air Transfer Applications.
- High Security Rear Bolt Fixings.
- Screwdriver Operated Opposed Blade or Quadrant Operated Flap Damper.
- Available as a Fire Rated Assembly.



GILBERTS

SERIES GP

Security Grilles

Introduction

Gilberts GP series presents a range of perforated face grilles designed for air supply, extract and transfer applications in high security areas such as Prisons, Cell Blocks and Remand Centres.

Manufactured to meet both Home Office and Ministry of Justice guidelines there are two specification levels. The standard GPS series (Ministry of Justice specification) comprises of a 2mm stainless steel fascia perforated with 3mm dia holes on a staggered 5mm pitch. The enhanced GPP series (Home Office specification for Police use) comprises of a 2mm stainless steel fascia perforated with 2mm dia holes at 4mm centres on a triangular pitch. The

enhanced GPP design is compulsory where police specifications apply. Please check with the building authority to confirm specification requirements. For all units the face is cross crimped to create a tough yet attractive unit with maximum tamper resistance. For applications requiring a separate plenum box (such as a fire rated plenum) the GPS4 and GPP4 flange includes a return edge for plenum lip clearance.

Units are fixed either with a maximum security rear bolt fixing providing no access from the face or, for medium and lower security areas with non removable 'clutch' screws through the flange.

TYPE GPS1 & GPP1 - Air supply or extract unit complete with plenum and maximum security rear bolt fixing.

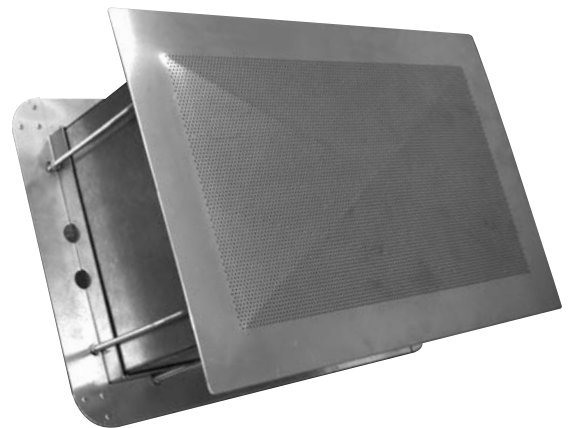
TYPE GPS2 & GPP2 - Air supply or extract grille fascia only complete with security clutch screw fixing through the face flange.

TYPE GPS3 & GPP3 - Air transfer grille arrangement comprising of a high security bolt fixing unit on one side and a lower security clutch screw unit on the other.

TYPE GPS4 & GPP4 - Air supply or extract grille fascia for applications using a separate plenum box. Grille flange features a return edge to provide clearance on the plenum lip. Security clutch screw fixing through the grille flange.

Features

- Robust 2mm Thick Stainless Steel Fascia.
- Available for Air Supply, Air Extract or Air Transfer Applications.
- High Security Rear Bolt Fixings.
- Screwdriver Operated Opposed Blade or Quadrant Operated Flap Damper.
- Available as a Fire Rated Assembly.



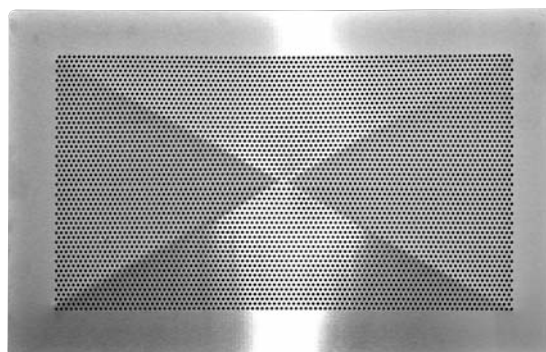
For volume control units can be fitted with an opposed blade damper mounted behind the grille fascia and operated through one of the standard fascia holes (identified with a marker pen) for installation and balancing. For units with plenum, quadrant operated dampers operated from the rear are also available. Type 1 units with integral plenum can also be fitted with either an intumescent or curtain type fire damper to provide a fire rated unit assessed to BS476 Pt 20 1987. For type 4

units a fire rated plenum can be provided separately. Please contact our office for details and installation guidance.

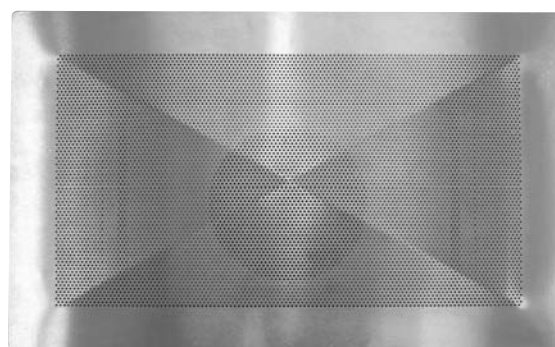
All units are available in sizes ranging from 150 x 150 up to 600 x 600 in 50mm increments. All units are supplied natural brushed stainless finish although other colours and finishes are available on request



Ministry of Justice Specification
(Type GPS)
3mm holes - Staggered 5mm pitch.



Home Office Specification for Police applications
(Type GPP)
2mm holes - Triangular 4mm pitch.



Performance Data

The performance data nomograms that follow are related to isothermal conditions. They can be applied for either supply or extract selection purposes and are intended to be an aid to the design engineer.

References used:

PRESSURE: All pressures are in Pa (N/m²).

SOUND: measured in average dba level.

THROWS: All horizontal throws are for a distance measured in metres and correspond to a terminal velocity of 0.25m/s.

Selection Procedure

Having established the position where the supply terminal can be situated measure the acceptable throw distance. It is better to position the supply Grille at high level in a side wall with the discharge of air over the ceiling and extract at a lower level. Knowing the volume and throw for each Grille then use the nomogram to check:

- A) Size as selected to give required throw of air.
- B) Noise level from performance data to ensure it meets with required specifications.
- C) Determine the static pressure drop from performance data.

Example (Type GPS):

Volume required 0.06m³/S.

Throw 5/6 metres.

Max Sound Level 35 dba.

From Chart selection of 300 x 300 Grille gives the following data:-

Throw - 6 metres

Sound Level - 24 dba

Pressure Drop - 8 pa

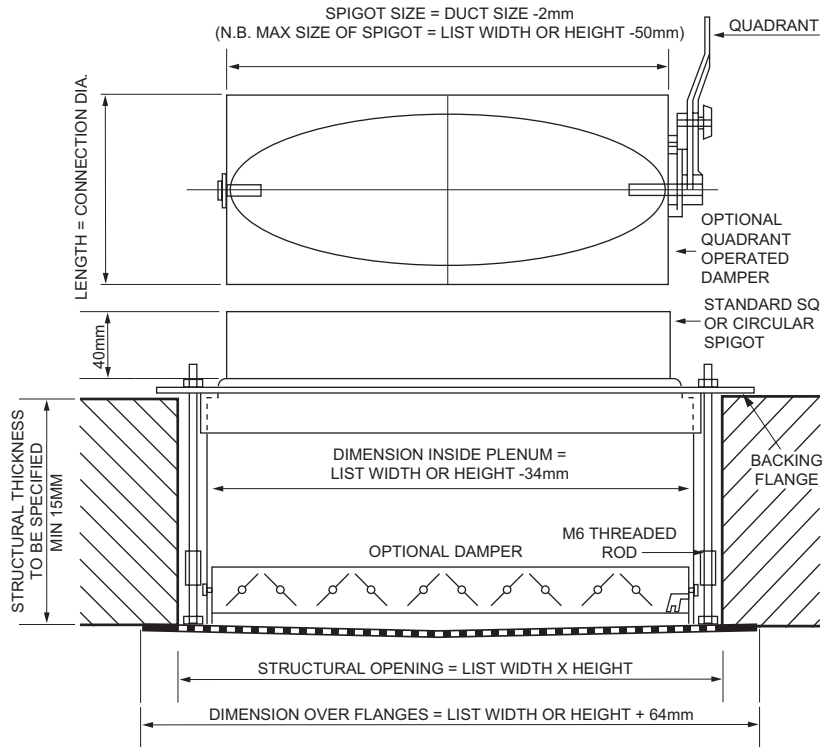
Selection of extract Grilles are generally based upon acceptable pressure drops and noise levels

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Series GPS1

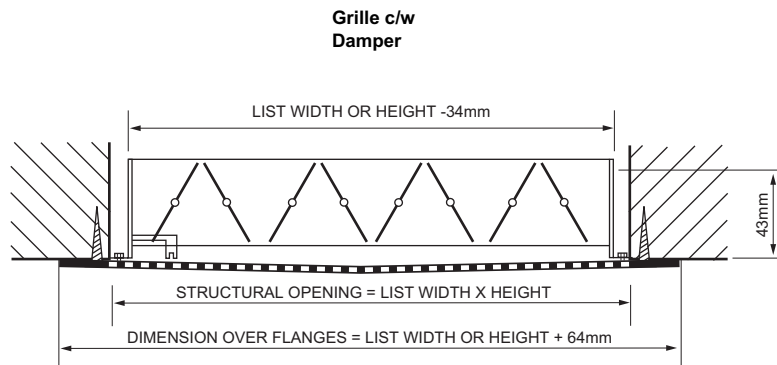
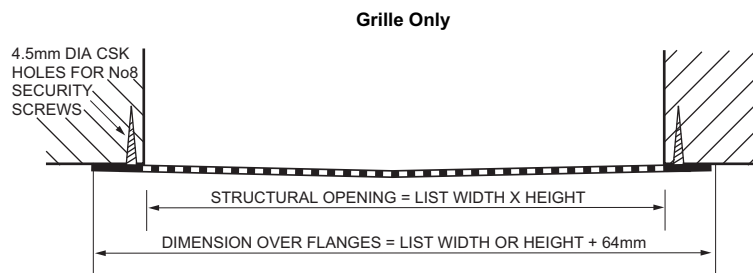
Q GPP1



ORDERING SPECIFICATION: BACK COVER

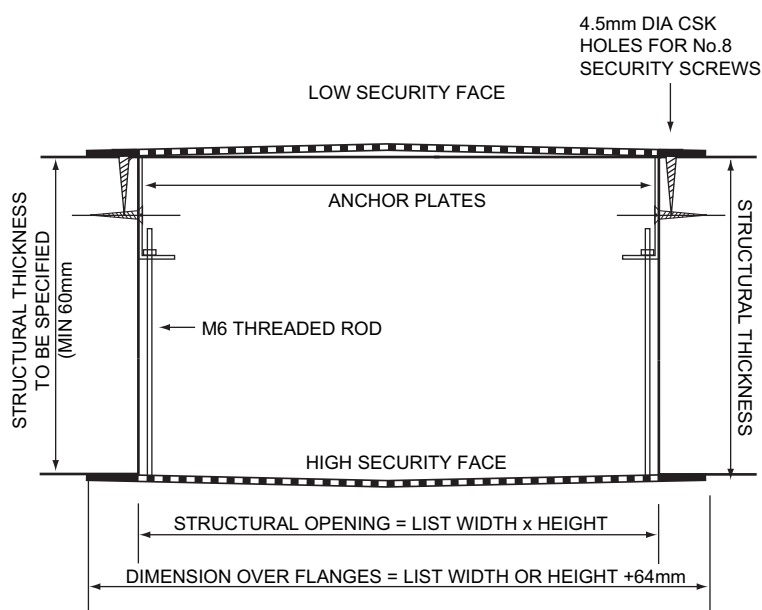
Series GPS2

Q GPP2





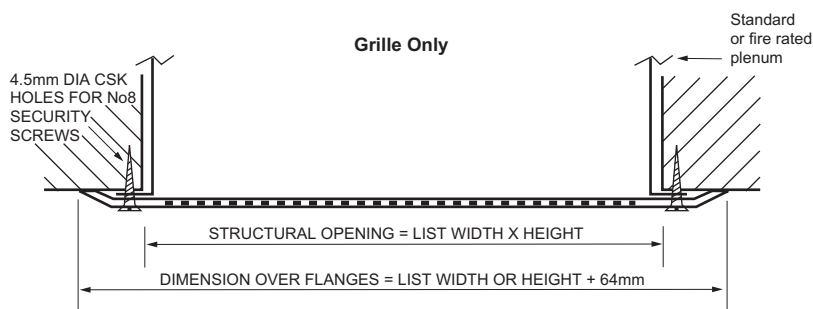
Series GPS3
& GPP3
Transfer
Grille



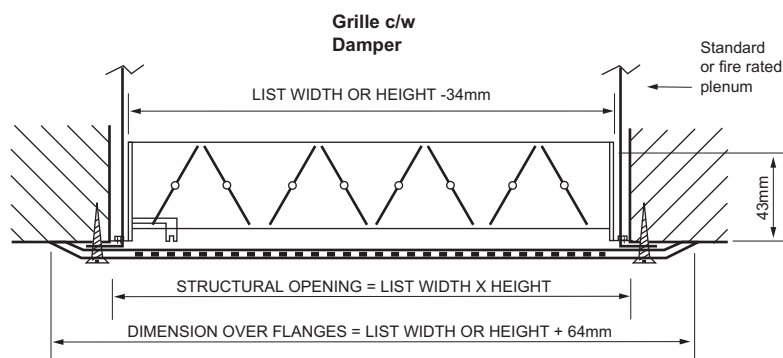
ORDERING SPECIFICATION: BACK COVER

MANUFACTURING TOLERANCES = +0/-2mm.

Series GPS4
& GPP4



Series GPS4-DO
& GPP4-DO



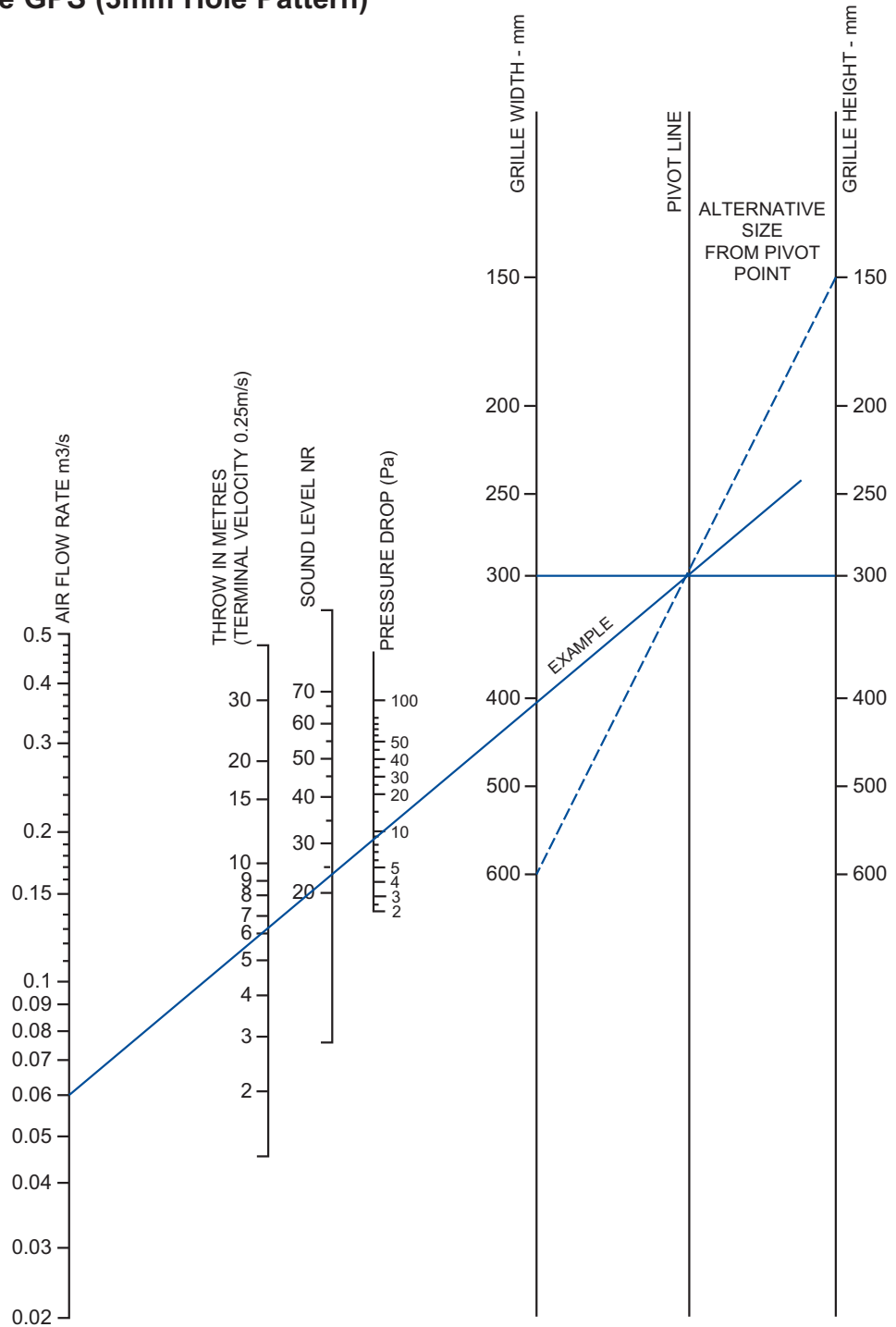
For fire rated plenum box details please see our publication - Diffusers 16
For standard plenum box details please see our publication - Grilles 17

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Sizing Nomogram

Type GPS (3mm Hole Pattern)

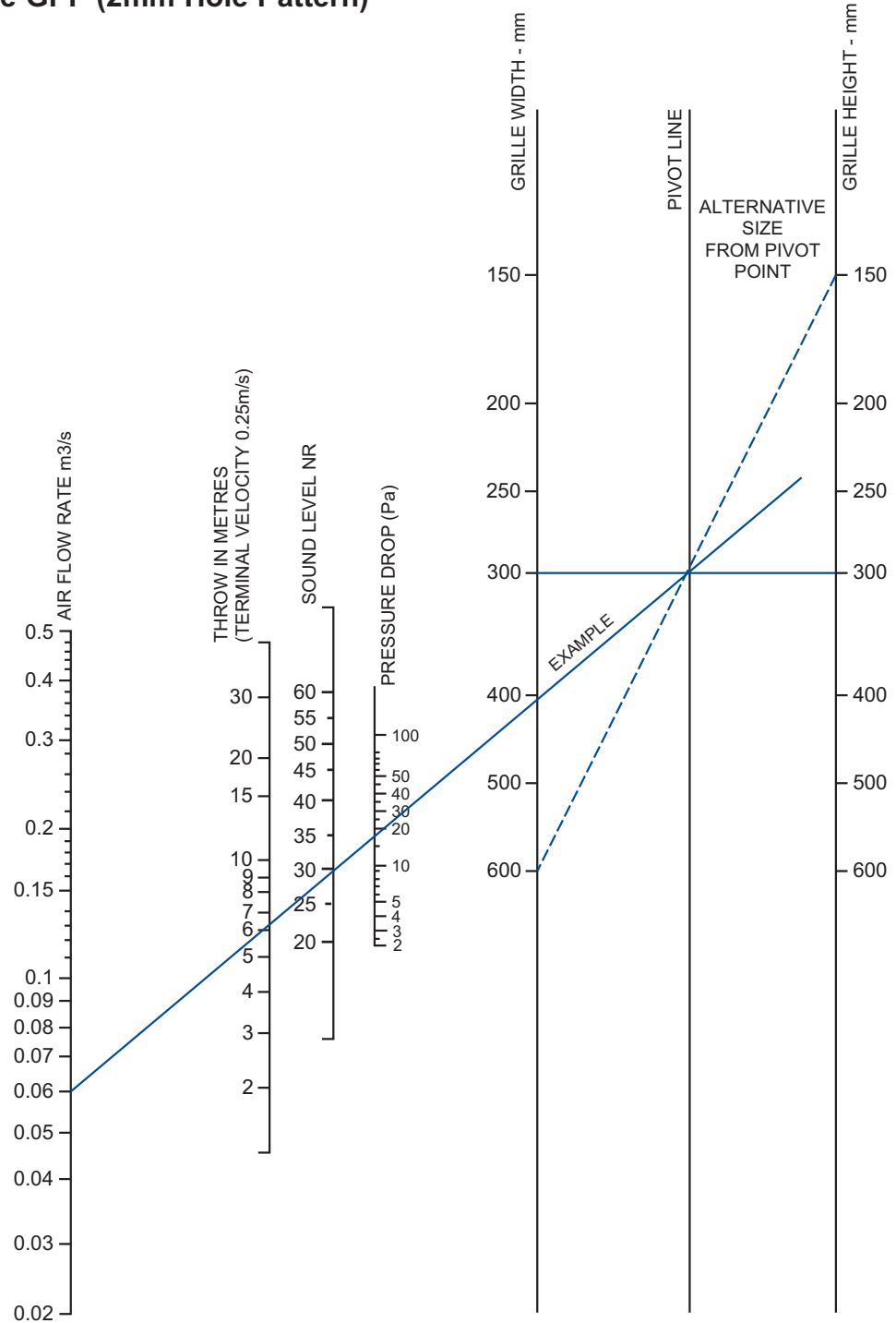


Note: For extract pressure drop multiply supply pressure drop by 2



Sizing Nomogram

Type GPP (2mm Hole Pattern)

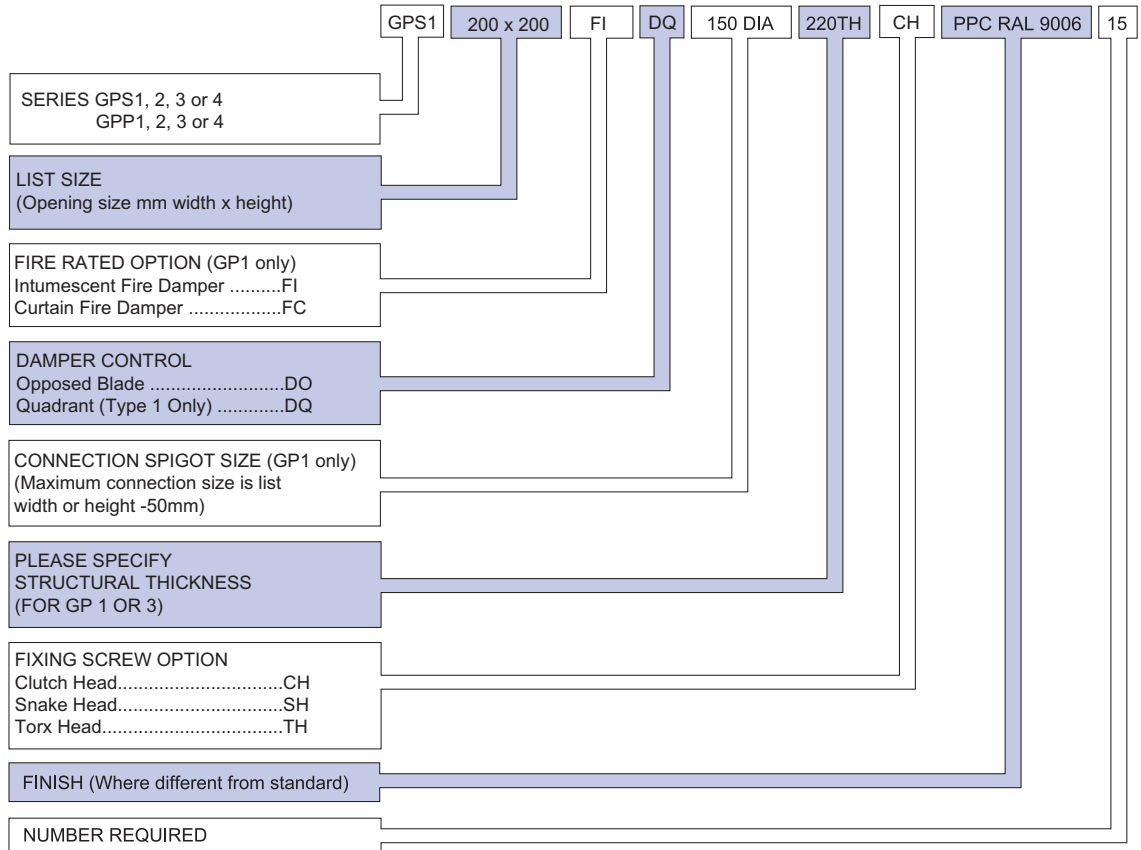


Note: For extract pressure drop multiply supply pressure drop by 2

SERIES GP

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Ordering Specification



Finish

STANDARD FINISH:
Natural Brushed Stainless

SPECIAL FINISHES:
Polyester Powder finish to stock BS or RAL colour.

Volume Control Damper

Type GP1,2 and 4 can be fitted with a rear mounted screwdriver operated opposed blade damper. Type GP1 also has the option of a hand operated quadrant damper if a circular spigot is selected. Adjustment of opposed blade dampers can be achieved using a screwdriver through a hole marked up on the grille face. The GPS (3mm hole) units will accept a standard electrical screwdriver, the GPP (2mm hole) units however require a special 2mm screwdriver which are supplied by Gilberts with each Grille batch.

Fixing

Standard fixings include either high security rear bolt fixing or low security clutch screw fixing as detailed in the descriptions.

SCREW FIXING OPTIONS:
CH - 4.2 x 50mm Clutch Head (standard)
SH - 4.2 x 50mm Snake Eye Head
TH - 4.2 x 50mm Pin Torx Head

GILBERTS

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