DARTS01.de
proudly presents

VAX
VOSSBERG AERO INDEX

FOR FOLDABLE, 4-WINGED, SYMMETRIC DART FLIGHTS

A NEW WAY TO COMPARE THE REAL FLIGHT ATTRIBUTES OF MORE THAN ONE HUNDRED FLIGHT SHAPES WORLDWIDE

VERSION 1.2
JULY 2025

VOSSBERG AERO INDEX

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The VOSSBERG AERO INDEX offers a simple key figure that makes it very easy to compare the flight attributes of different foldable, symmetric, 4-winged darts flights. To work out the VAX of a flight, the size and the centroid of a wing are the main parts of the calculation. The results are values of 1.0 to 5.0 for all known forms of competition flights. These values are subdivided into 9 groups from XXS to XXL. Of course, shaft type and length and some other parameters also have an influence on how smoothly or fishtailing a dart flies.
The simplest explanation for the VOSSBERG AERO INDEX is this: If only the flight of a dart is changed and both flights are made of the same material with the same thickness, the flight with the larger VAX figure stabilizes the flight of the dart more than the flight with the smaller one. Conversely, the less supportive flight makes the dart fly faster. Incidentally, the angle at which a dart sticks in the board cannot be derived directly from the VOSSBERG AERO INDEX.
The millimeter paper embedded in the VAX graphics also provides information about the extent of a flight shape. This is very useful if you are looking for suitable flights for so-called sideloader shafts, if you want to group your darts closer together or if you no longer want to bump your shoulder, chin or nose when throwing. In all of the examples mentioned, 1 or 2 millimeters can sometimes determine the suitability of a flight. With the VOSSBERG AERO INDEX you can often find an alternative to a flight shape that flies ideally but is a little too long, short or wide.

The area dimensions in cm² result from the sum of all 8 partial areas of an unfolded flight. This is because most of the flights consist of 4 glued pieces, which then nestle against each other like 4 right angles. The foil surface that is actually expended for these 4 parts has become the common size specification for darts flights. Very few manufacturers provide information on the size of their flights - the numbers in the VAX sometimes differ from this. This is probably due to the fact that only real flights were scanned, graphically reproduced and measured for the work on the VOSSBERG AERO INDEX, but no technical drawings from manufacturers were used.

The construction method described for most of these flights also explains why, for example, a wing of a 100 micron flight is around 0.23 mm thick. The rule of thumb is: The value of micron specification times 2 (2 layers of foil) plus approx. 0.02-0.05 mm for adhesive layer(s).

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K2
38.1 cm²
0 mm
K.V.DSGN
VOSSBERG AERO INDEX:
3.7
CONSIDERS WING AREA & POSITION OF CENTROID
VAX
VOSSBERG AERO INDEX
XXS XS S SM M LM L XL XXL
SPEEDY < VAX CATEGORY > STEADY


VORTEX
41.8 cm²
0 mm
K.V.DSGN
VOSSBERG AERO INDEX:
3.7
CONSIDERS WING AREA & POSITION OF CENTROID
VAX
VOSSBERG AERO INDEX
XXS XS S SM M LM L XL XXL
SPEEDY < VAX CATEGORY > STEADY

VOSSBERG AERO INDEX

NEW FLIGHT SHAPE

VOSSBERG AERO INDEX

NEW FLIGHT SHAPE

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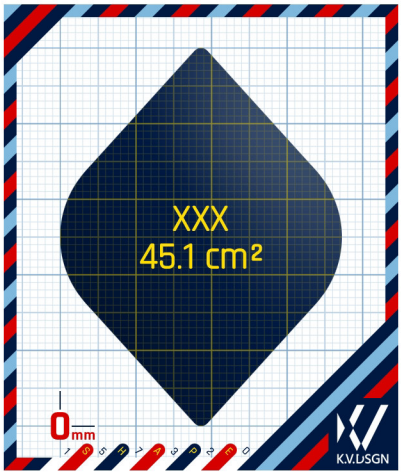
VOSSBERG AERO INDEX:
3.9
CONSIDERS WING AREA & POSITION OF CENTROID

XXS XS S SM M LM **L** XL XXL
SPEEDY < VAX CATEGORY > STEADY

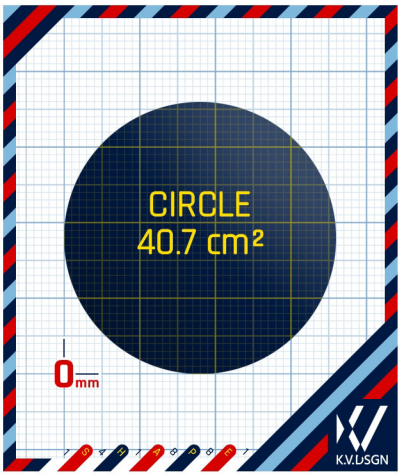


VOSSBERG AERO INDEX:
4.0
CONSIDERS WING AREA & POSITION OF CENTROID

XXS XS S SM M LM **L** XL XXL
SPEEDY < VAX CATEGORY > STEADY

VOSSBERG AERO INDEX:
4.0
CONSIDERS WING AREA & POSITION OF CENTROID

XXS XS S SM M LM **L** XL XXL
SPEEDY < VAX CATEGORY > STEADY

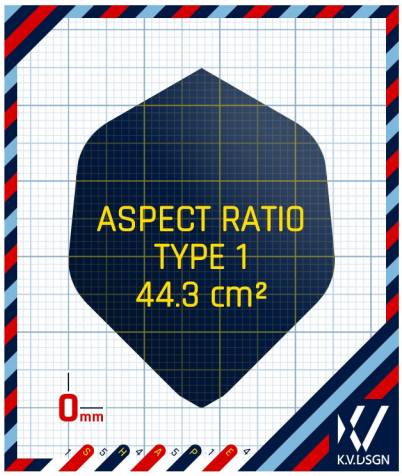


VOSSBERG AERO INDEX:
4.1
CONSIDERS WING AREA & POSITION OF CENTROID

XXS XS S SM M LM **L** XL XXL
SPEEDY < VAX CATEGORY > STEADY

VOSSBERG AERO INDEX:
4.1
CONSIDERS WING AREA & POSITION OF CENTROID

XXS XS S SM M LM **L** XL XXL
SPEEDY < VAX CATEGORY > STEADY



VOSSBERG AERO INDEX:
4.2
CONSIDERS WING AREA & POSITION OF CENTROID

XXS XS S SM M LM **L** XL XXL
SPEEDY < VAX CATEGORY > STEADY


BIG WING
42.5 cm²
0 mm
K.V.DSGN
VOSSBERG AERO INDEX:
4.2
CONSIDERS WING AREA & POSITION OF CENTROID
VAX
VOSSBERG AERO INDEX
XXS XS S SM M LM L XL XXL
SPEEDY < VAX CATEGORY > STEADY


TOMAHAWK
43.2 cm²
0 mm
K.V.DSGN
VOSSBERG AERO INDEX:
4.2
CONSIDERS WING AREA & POSITION OF CENTROID
VAX
VOSSBERG AERO INDEX
XXS XS S SM M LM L XL XXL
SPEEDY < VAX CATEGORY > STEADY

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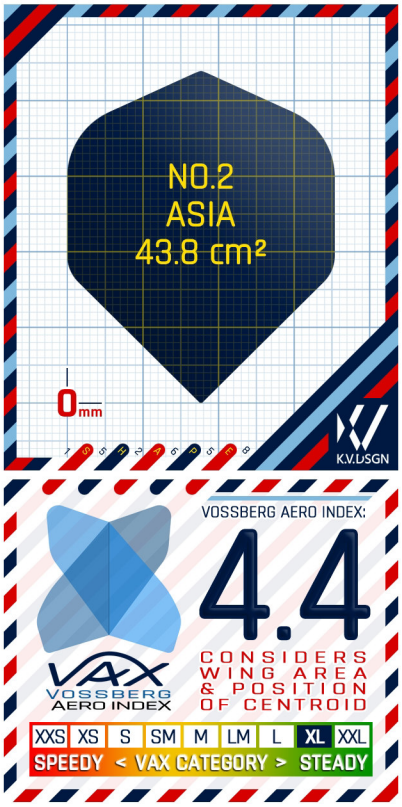

VOSSBERG AERO INDEX


BIG WING XL
47.7 cm²
0 mm
K.V.DSGN
VOSSBERG AERO INDEX:
4.8
CONSIDERS WING AREA & POSITION OF CENTROID
VAX
VOSSBERG AERO INDEX
XXS XS S SM M LM L XL XXL
SPEEDY < VAX CATEGORY > STEADY


DELTA
44.1 cm²
0 mm
K.V.DSGN
VOSSBERG AERO INDEX:
5.0
CONSIDERS WING AREA & POSITION OF CENTROID
VAX
VOSSBERG AERO INDEX
XXS XS S SM M LM L XL XXL
SPEEDY < VAX CATEGORY > STEADY

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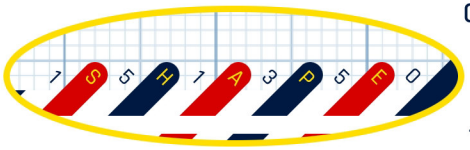
The author of this information work cannot be held liable for any damage caused by failure to observe these instructions.

For some of the flight shapes, the names could not be successfully researched. In these cases, names were assigned to these shapes. In order to be able to rename such shapes in case of later indications of their actual names without creating a big confusion, each flight shape is assigned a 6-digit ID number in addition to the name. This number remains unchanged in every case.



the shape ID

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Of course, adjustments can be made to the size in the original proportions. As a result, however, all information, with the exception of the 6-digit shape identification number, should still be clearly legible. Do not add graphic effects, logos or writing and do not change colours, shapes, fonts and content! **Links to the text of the licence conditions can be found below.**
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If you use the flight graphics to make it clear that you are offering a particular shape for sale, please make sure that it really is the flight shape shown. If you get any indication that the illustration shows a different shape than the one you are offering for sale, please correct this error within 30 days.

If you want to print the flight shapes on a scale of 1:1, please select the setting "Actual size" or "Custom Scale: 100%" in the print menu of your PDF program.

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