

OUR SICKLE SERIES

ENGLISH

DATASHEET

Our series of sickle-shaped impellers is one of the latest developments in our product range. It covers diameters from 405 mm to 1446 mm.

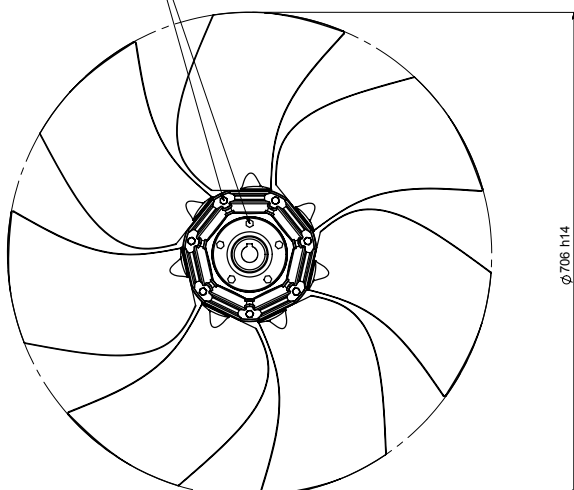
One of the advantages of the sickle-shaped blade design is the low noise capabilities. The curved leading edge of the blades reduces the noise generated during blade passage. Another noise reducing design feature is the very thin trailing edge of the blades causing the vortex to shed more easily.

The large chord length of the sickle-shaped design also means that this series is able to produce high pressure rates at lower speeds, ultimately also contributing to lower noise levels.

The sickle-shaped series is a natural choice for applications with a relative high pressure loss i.e. applications within refrigeration and the radiator/engine cooling market specifically oil coolers, compressors, generators and other off highway equipment.

5 Bolts @ M6x16 8.8/zinc BC 90

7 Bolts @ M6x25 8.8/zinc BC 174



DESIGN FEATURES

- The sickle shaped blades are additions to our existing Z and W series, and can therefore be assembled in 3, 4, 5, 6, 7, 8, 9, 10, and 12 bladed retaining plates.
- Adjustable pitch angles. For fan blades 1Z and 2Z the available pitch angles are 20°, 25°, 30°, 32,5°, 35°, 37,5°, 40°, and 45°. For fan blades 1W and 2W the pitch angle can be changed with 1 degree increment.
- 1Z and 2Z are available for both clockwise and counter-clockwise rotation.
- 1W and 2W are available for counter-clockwise rotation only.
- A range of different mounting solutions are available from stock i.e. bosses with standard bore/keyway sizes and solutions incorporating taper-lock bushings.
- For information on specific fixing configurations, please look at our datasheets covering our Z series and our W series or visit multi-wing.com/zseries and multi-wing.com/wseries.

MATERIALS

The hub parts are as standard manufactured in a pressure die cast silumin alloy (EN AC-AI Si12 Cu1 (Fe)). The fan blades are available in 3 different materials as listed below. The 2ZL is also available in pressure die cast silumin alloy (EN AC-AI Si12 Cu1 (Fe)).

PAGI Glass reinforced polyamide, industrial quality

Temperature range: -40°C to +110°C

Please observe penalty factors for temperatures above 40°C.

PAG Glass reinforced polyamide

Temperature range: -40°C to +110°C

Please observe penalty factors for temperatures above 40°C.

PAGAS Anti static glass reinforced polyamide

- For explosion proof working conditions

Temperature range: -40°C to +110°C

Please observe penalty factors for temperatures above 40°C.

AL Aluminium

Temperature range: -60°C to +245°C

Standard alloy for the fan blades is (EN AC-AI Si12 Cu1 (Fe)).

Please observe penalty factors for temperatures above 150°C.

We reserve the right to change the materials of manufacture.

The values for the mechanical properties are mean values and can be subject to variations due to the use of different suppliers.

Ø D max. for blade type	No. of pos. in hub					
	5	7	8	9	12	16
1Z	537	578	658	592	672	767
2Z	665	706	786	720	800	895

Pitch	Leading edge $v \pm 2$							
	20°	25°	30°	32.5°	35°	37.5°	40°	45°
1Z	25	27	30	31	32	33	34*	35*
2Z	33	36	39	40	42	43*	44*	46*

Pitch	Trailing edge $h \pm 2$							
	20°	25°	30°	32.5°	35°	37.5°	40°	45°
1Z	41	46	51	54	57	60	63	69
2Z	52	58	64	68	72	76	80	88

(*) The leading blade tip reach further out than the leading edge (v) or the trailing edge (h) in it's max diameter.
All dimensions are in mm.

Ø D max. for blade type	No. of pos. in hub			
	3, 4 & 5LP	5 & 6	8	10
1W	912	986	1092	1182
2W	-	1250	1356	1446

Pitch	Leading edge $v \pm 2$							
	15°	20°	25°	30°	35°	40°	45°	50°
1W	26	29	32	35	39	41*	44*	47*
2W	38	43	47	52*	56*	59*	63*	65*

Pitch	Trailing edge $h \pm 2$							
	15°	20°	25°	30°	35°	40°	45°	50°
1W	43*	50	58	67	74	85	95	104
2W	80	88	101	116	130	144	157	168

(*) The leading blade tip reach further out than the leading edge (v) or the trailing edge (h) in it's max diameter.
All dimensions are in mm.

