

Tillotson[®]
RACING

Open Racing **JUST GOT FASTER**

Next Generation HM-2A for Rotax Karting engines.
www.tillotson-racing.com



Fuelling Innovation for 100 years

 **Tillotson**
RACING

WELCOME TO TILLOTSON

Since the 1950's, inventive drivers have been taking their two-stroke or four-stroke engines and turning them into racing machines. From the very beginning, Tillotson carburetors have fueled the passion for racing.

Our HL series carburetors, originally created for chainsaws, were among the first carburetors to be adapted to racing. Drivers looking for more power turned to our larger HR carburetors, which originally powered snow mobiles and other large off-road vehicles.

In 2007, we introduced the HW Series Tillotson Avenger, a new line of carburetors designed specifically for the racing industry. These carburetors maximize the performance of today's racing engines, with greater fuel flow, more power and finer adjustment.

Since that time, the Avenger series has helped drivers win European and World Championship titles in both KF/KF2 and KF3/KFJ classes. Although they were originally designed for those classes, they can also be substituted for our HL carburetors for enhanced performance in open class racing and have also been adapted for four-stroke applications.

With the success of the Avenger class carburetor, we expanded our line of racing carburetors to include the HC and the HM models. The HC series is a billet version of the HW, which allows customized color and a solid body which can more easily be modified when regulations permit. HM carburetors have a boot-style connection which allows them to easily replace other brands of float carburetors on larger size karts and racing vehicles.

So, whether you're racing on the newest KF engines or virtually any other 2- or 4-stroke engine, and whether you're powered by gas or alcohol, we've got a carburetor that will improve your lap times and help take you to the next level of racing.

KF CARBURETORS

The KF categories in karting are the premier international classes where the best drivers in the world compete in their quest up to formula racing. From the introduction of the KF engines in 2008, Tillotson has been leader in carburetor development for all KF classes. We've offered a different configuration with each homologation, ensuring that the drivers have the right carburetor for their engine. You can find a list of the key features for each carburetor on page 18.

Push the Button

The latest models both feature the unique "Enrichment Circuit" button; which for the opening formation laps allows the drivers to press the button closed to lean off the setting to optimise their starts and gain the advantage on the opening laps. The Enrichment Circuit eliminates the need to adjust and re-adjust jets at the start of the race.





HW-23A

Technical Specs

Venturi Diameter: 20mm

Throttle Bore Diameter: 26mm

Application: CIK=FIA KFJ



HC-102A

Technical Specs

Venturi Diameter: 24mm

Throttle Bore Diameter: 28mm

Application: CIK-FIA KF

ROTAX

Tillotson had produced two new carburetors for open class Rotax racing. These carburetors offer racers faster lap times and easy set-up and adjustment. We released the HM-2A in November 2013, where it was immediately heralded by Vroom magazine as the first "proper racing carburetor" for Rotax engines. The HX-10A, our die cast version, was released in May 2014.

Models:

- HM-2A CNC machined body
- HX-10A Die Cast body



* Photo courtesy of Vroom Magazine

Advantages over Stock Rotax Carburetor:

- ◇ *Fully Adjustable with low and high speed jets easily adjustable on or off-track*
- ◇ *Improves power and acceleration*
- ◇ *Simple choke system with automatic shut-off*
- ◇ *Eliminates Mikuni Pulse Pump due to carburetor pulse connection*
- ◇ *Eliminates scrutineering discrepancies associated with float carburetor*

The HM-2A and HX-10A models are the same in design with a 27mm venturi and 34mm throttle bore. Since Italy carried out a track test in November 2013 the interest from the Rotax World has been exceptional; Several clubs have adapted the carburetors while many countries and other federations are looking to create "Super Max" categories with our carburetors. The carburetors are also ideal for the Rotax rental market, where ease of adjustment makes it easy to set all engines to the same performance level.

Note: Drivers should check local rules to ensure the HM-2A or HX-10A are permitted. They are not sanctioned for the Rotax Max Challenge and other Rotax-sponsored races. Tillotson does not recommend use on Rotax engines still under warranty as BRP-Powertrain has indicated that doing so will void its warranty.



Technical Specs

*Venturi Diameter 27mm
Throttle Bore Diameter 29mm
Application: Iame X30 125cc
TAG Category*

X30

Tillotson has developed the HW-27A carburetor specifically for the IAME X30 UK market. This category is new in the UK and Tillotson is proud to be part of the revolution as it grows rapidly in popularity.

X30 / Tillotson Sets New 24Hr Kart World Record!

The 24hr Kart World Record is now held by Lloyd de Boltz Millar who ran for 1,081.66 miles with his IAME X30 and Tillotson HW-27A!

CADET CARBURETOR

Tillotson has a long history of producing carburetors for the Cadet categories through our collaboration with Comer and our HL-166. In 2013, the Iame Gazelle won the tender for the class in the UK using our latest HL racing carburetor, the HL-394A. Other countries, including the Republic of Ireland, have adopted our HW-17A for their cadet classes. The HL offers a reliable, less costly solution while the HW offers higher performance with a racing grade appearance and quality.



ALTERNATIVE DEVELOPMENTS

Tillotson is also a leader in developing racing carburetors for a variety of other motorsports. We often work directly with tuners and drivers to develop large bore carburetors for club and national categories.



HW-24A

The HW-24A is a variation of our HW-12A, which was originally developed for the KF1 category. The HW-24A was calibrated for the UK Formula Vee category in cooperation with AHS Motorsports and, as of 2013, has already helped win the Formula Vee Championship in successive years. Formula 750 drivers have also adopted the HW-24A, and in its first year in that category, it helped bring home the 750 Trophy. The HW-24A has a 32mm venturi and a 36mm throttle bore.

HM-1A

The HM-1A is a 42mm venturi carburetor that has been produced for large 350cc engines used in the US in the Unlimited All-Stars series and is suitable for Jr. Drag racing. Similar to the HM-2A Rotax model, this carburetor mounts directly to the engine with a "boot-style" connection without requiring modification to the engine inlet.



HW AT LARGE

Although the HW carburettor was originally developed for KF engines, the KF2 and KF3 carburettors fit most engines which currently use an HL carburettor and, with a manifold, can be used on most other 2- and 4- stroke racing engines. It didn't take long for our fans throughout the world to start experimenting, and we have developed a growing list of "secondary" applications for our carburettors. The HW 10A, 10B and 11B have been successfully used on Yamaha KT-100s, Iame Leopards, Subaru KX-21s and EX-21s (4-stroke modifications), and other applications. Browse through our carburettors on Tillotson-racing.com for the ever-expanding list.

YOUR CATEGORY HERE

If you're a club, federation or series looking to improve the racing experience, we can provide a custom-calibrated carburettor at a cost-effective price. With a custom solution, we can give you direct access to technical support and help you reduce the scrutineering requirement, improve lap times, enhance the consistency among carburettors. We've helped clubs and federations with as few as 10 drivers to as many as 5,000 get the most out of the racing experience.

ACCESSORIES

In addition to carburetors, Tillotson has developed a line of performance tools that help drivers and mechanics adjust and tune their carburetors both on and off the track.



QuickJet

The QuickJet SA-500 adjuster fits all Tillotson HW and HL carburetors along with most other brands of racing carburetors. Quickjet helps you set the high and low jet openings to precise locations or settings. Simply align the rotation arm and guide to 0 and turn the arm until you reach the desired turns-open setting. An essential tool for all mechanics!!

PrecisionJet

The Tillotson PrecisionJet SA-501 and SA-502 remote controllers allow you to remotely adjust the high and/or low needle setting on your carburetor in precise one-minute increments with the touch of a button. They are ideal for helping a driver find the right setting on the practice day and for mid-race operation in open class events.



TILLOTSON APPAREL



Visit us at tillotson-racing.com to see our latest line up of hats, t-shirts, polos, hoodies, etc



CARBURETOR MAINTENANCE

In order to ensure correct carburetor operation, it is important to replace worn diaphragms and gaskets after long periods of use. Tillotson supplies a diaphragm and gasket kit along with a full repair kit for each carburetor model that can be purchased at your local dealer or from our online shop: www.tillotson-racing.com.

Visit our online shop to view our full range of stickers carburetors, accessories, repair kits, tools, clothing, etc.

Also, for further downloads including information on how to service the Tillotson carburetor visit, www.tillotson.ie



FUTURE DEVELOPMENTS

Tillotson is committed to advancing the world of motorsports. We take a proactive approach to new developments and look for ways to create simple yet high-performance solutions for the racer. We work directly with engine manufacturers, federations and clubs to develop products dedicated to their applications and particular requirements.

Stay tuned to our website – Tillotson-racing.com – for our latest development or email sales@tillotson.ie to enquire as to what we can do for you.

SPECS PAGE

Model No	Primary Application*	Venturi	Throttle Bore	RK	DG
HC-102A	CIA-FIA KF2	24 mm	28 mm	RK-1HW	DG-1HW
HC-103A	CIA-FIA KF3	20 mm	26 mm	RK-1HW	DG-1HW
HL-166B	Comer Cadet	16 mm	20.6 mm	RK-94HL	DG-2HL
HL-304E	Tal-Ko	22.3mm	25.4mm	RK-102HL	DG-1HL
HL-304F	lame KFS100	22.5 mm	25.4	RK-117HL	DG-1HL
HL-334A	lame	22.9 mm	25.4 mm	RK-117HL	DG-1HL
HL-334B	lame Puma	19.8 mm	25.4 mm	RK-117HL	DG-1HL
HL-334AB	lame Leopard	22.9 mm	25.4 mm	RK-117HL	DG-1HL
HL-334WX	Various	22.5mm	25.4mm	RK-113HL	DG-1HL
HL-352A	lame	16 mm	20.6mm	RK-114HL	DG-1HL
HL-360A	Various	24 mm	27 mm	RK-116HL	DG-1HL
HL-384B	lame Tiger125	21.4mm	25.4mm	RK-117HL	DG-1HL
HL-385A	lame	19.8mm	25.4mm	RK-117HL	DG-1HL
HL-394A	lame Gazelle UK	18mm	20.6mm	RK-126HL	DG-6HL
HL-395A	RVL	16.2mm	20.6mm	RK-94HL	DG-2HL
HM-1A	350cc Blockzilla	42mm	45mm	RK-1HM	DG-1HM

* The primary application indicates the application that the carburetor was originally developed for. Many of our carburetors also have secondary applications. We add known secondary uses to our website as we discover them, so check tillotson-racing.com or contact us for more information.

Model No	Primary Application*	Venturi	Throttle Bore	RK	DG
HM-2A	Rotax Open Class	27mm	34mm	RK-1HM	DG-1HM
HR-181B	Various	27.8mm	33.3mm	RK-103HL/HR	DG-4HL/HR
HR-192A	Various	30.2mm	34.4mm	RK-103HL/HR	DG-4HL/HR
HR-196A	Various	32.5mm	34.4mm	RK-103HL/HR	DG-4HL/HR
HR-201A	Various	30.2mm	34.4mm	RK-103HL/HR	DG-4HL/HR
HS-205A	Radne Raket 85	17.5mm	20.6mm	RK-23HS	DG-5HS/T
HS-319A	Radne Raket 95	17.5mm	20.6mm	RK-23HS	DG-5HS/T
HW-10A	KF3 CIK-FIA	20 mm	26 mm	RK-1HW ◊	DG-1HW ◊
HW-10B	KF3 CIK-FIA	20 mm	26 mm	RK-1HW ◊	DG-1HW ◊
HW-11A	KF2 CIK-FIA	24 mm	28 mm	RK-1HW ◊	DG-1HW ◊
HW-11B	KF2 CIK-FIA	24 mm	28 mm	RK-1HW ◊	DG-1HW ◊
HW-17A	Motorsport Ireland	18 mm	22 mm	RK-4HW	DG-1HW
HW-22A	CIA-FIA KF2	24 mm	28 mm	RK-1HW ◊	DG-1HW ◊
HW-23A	CIK-FIA KF3	20 mm	26 mm	RK-1HW ◊	DG-1HW ◊
HW-24A	Formula Vee UK	32mm	36mm	RK-1HW	DG-1HW
HW-27A	Iame X30 UK	27 mm	29 mm	RK-1HW	DG-1HW
HX-10A	Rotax Open Class	27 mm	34 mm	RK-1HX	DG-1HX

◊ An optional RK-2HW and DG-2HW, which contain a mylar diaphragm, are also available for warmer weather. Check your local rules to confirm use is permitted.



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