

EasyScan

Fast & accurate power measurement



2WD or 4WD



Pit or ground
mounted



Motorbike
compatibility



500 & 1000 Hp



Up to 300 km/h



Power measurement



Single roller



Synchronized



Easy to install

Rotronics : a large range of products

Chassis dyno was limited in the past to master tuners. It is now becoming mandatory for each activity related to engine mapping. With more than 25 years of experience on this field , we have designed an affordable and efficient tool.



Started as a family business focused on performances & racing in 1991, Rotronics is now also involved in advanced technology industrial projects. We design and manufacture engine test bed and rolling road

dynamometers for engine performance tuning, motorsport, education and R&D. Rotronics is made of engineers and technicians who have an advanced technical expertise dedicated to design, development and

manufacturing of our products. Everything is made in house in our factory for the most powerful and successful benches.



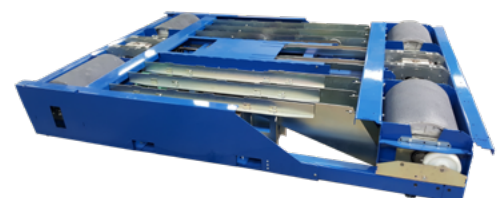
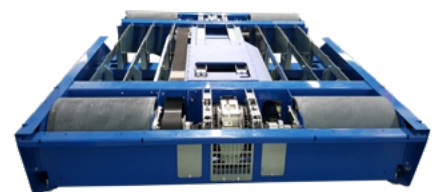
Easy to use, Ready to go

INSTALLING THE DYNO YOURSELF

This chassis dyno has been designed to be installed by the customer himself. In 2WD version, you just have to install the dyno on the ground/pit and make the electrical connection. In 4WD version, dyno is delivered set in the correct wheelbase position making possible to lift the whole dyno in one single piece very easy to install. Of course, both dyno are passing a factory acceptance before shipment.

An installation realized by the end user is saving money & time.

For installation, but also for shipping, there are dedicated transversal sheaths to lift using a simple fork lift. This design allows a safe and fast handling process reducing fall risk to the minimum. Please note that there are additional anchor points on each corner of the dyno to be able to lift down inside a pit with lifting straps & shackles.



Easy to use



Easy to carry

PIT/ GROUND MOUNTED

This chassis dyno can be used in a pit as well as on the ground.

In a pit to have a flat installation giving an easy time to install the car and more room in your workshop

Ground mounted to have something movable, easy to install without civil works.



Ground mounted / pit mounted



Versatile product

For a ground mounted installation, chassis dyno comes with protection plates to avoid people to be hurt by turning parts and protect mechanics from dust. It comes also with access ramps.

Of course, dyno is having same features independently of the mounting type. Process is also reversible : it is possible to modify a ground mounted dyno to be installed in a pit in a second phase.

Efficient power measurement

BRAKED DYNO

Dyno comes with a strong Eddy Current brake with high torque and power. Driven by high performance electronic controller, we can set the load applied to the vehicle to have the same car behavior on the dyno than on the road.

Our dyno is way more efficient compare to inertial test benches, which are totally outdated to test actual ECUs.



Representative testing conditions



Respected Engine behavior

SINGLE ROLLER

Affordable does not mean weak technical solution. Easyscan is a single roller chassis dyno.

This means that the tyre is running on a large diameter roller, instead of being stuck between 2 small diameter rollers. It prevents from dribbling & slipping. To have maximum traction, accuracy and repetitiveness, rollers are resin coated and with a large diameter (450mm).

A natural link between roller & tyre offers the following assets :

- + Contact tyre / roller similar to reality
- + No more slipping or dribbling
- + Improved room between car's floor and dyno for better cooling of transmission and exhaust
- + No risk to blow a tyre as heat level is similar to road driving



The dyno is equipped with smart front auxiliary rollers allowing to install the car alone as well as helping to align it if it was entered crossed.

SYNCHRONIZATION

Easyscan features a mechanical linking system that connects the rollers together.

All the wheels of the test vehicle rotates at the same speed regardless of the vehicle technology : 2WD or 4WD, viscous coupling, proactive differentials (Haldex for example), electronic driving aids such as ESP for example.

Our solution is proved since 2000 and faced no issues with the latest hybrid and electric vehicle technologies. Using a toothed belt is the solution to keep a perfect synchronization between front and rear rollers : no distortion on the readings or no impossibility to test vehicles on the dyno, even at high speed. Thanks to this proved technology, maintenance and cost are very limited compare to alternative used by other brands.



Front / rear synchronization
whatever the speed

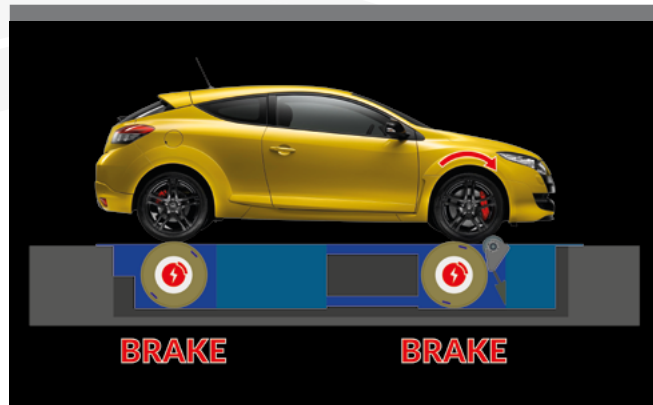


Easy maintenance

CONFIGURABLE NUMBER OF BRAKES ON EASYSCAN X4

Easyscan is equipped with an eddy current brake located on the rear axle between the rollers.

In case you want to reinforce the braking force we can add a second eddy current brake located on the front axle between rollers, to test very powerful vehicles or for long duration test to limit brake overheating.



MOTORBIKE COMPATIBILITY OPTION

Easyscan X2 and X4 can accommodate motorcycles.

A clutch is used to isolate the roller connected to the brake in order to reduce the inertia driven by the vehicle avoiding to apply too much resistance. A movable front support and rear straps ensure the stability of the motorcycle while a Fan motorbike kit force high speed cooling air to the engine radiators.

EASY TO USE

Our chassis dyno features a control cabinet (hosting dyno electronic hardware) and also remote control that enables the customer to interact with the software from the driver seat.

Easyscan is equipped with an electric wheelbase adjustment for the 4WD version. On the cabinet, a double switch enables the customer to expand or lower the dyno according to each vehicle tested.



Bench steering from the vehicle



Easy to use



Accessories and options

OBD ACQUISITION

To make the dynamometer easier to operate, Rotronics has developed a wireless OBD link. It helps you to get direct access to different engine informations with a single connection to the OBD port.



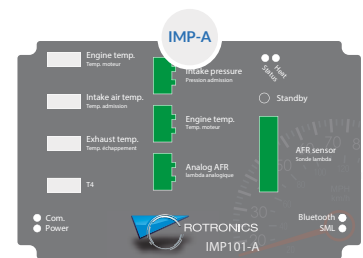
WEATHER STATION

Engine power is dependent of weather conditions. Related to atmospheric conditions, the engine is delivering more or less power. Weather station applies standardized correction factors to compare different results acquired in totally different conditions (cold and hot for example).



LAMBDA MEASUREMENT

To be able to realize a professional mapping, you need to take into account all the engine parameters. Rotronics proposes the IMP (Multi Peripherals Interface) that collects different informations. First of all, this device includes weather station and OBD acquisition as described above. The signal acquired are atmospheric pressure, engine temperature, coolant temperature, throttle position, exhaust manifold temperature and air intake flow. These acquisitions are done through OBD or real analog inputs (TCK or voltage). IMP-A is also measuring air fuel ratio or richness. It comes with large bandwidth probe. A mechanical support to install it on exhaust output is also provided.



OPTIMAL COOLING

For the safety of equipment tested and the quality of measurement, Rotronics proposes powerful streamlined fans to perfectly distribute airflow. These are switched on/off through remote control. You can set the height to adjust flow to sport cars or SUV.



GAS EXTRACTOR

Rotronics proposes two type of powerful extractors for exhaust gases, adjustable in height and equipped with a stainless steel collection scoop to ensure that the gas temperature is lowered by dilution. These are also started/stopped through remote control.

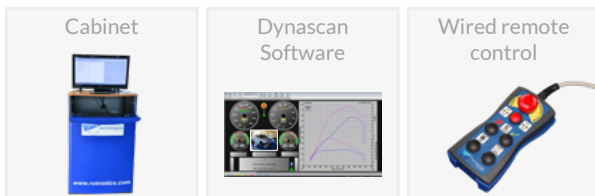


Technical specifications

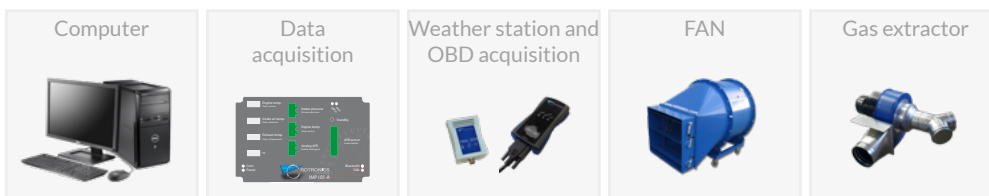
	EasyScan X2	EasyScan X4	EasyScan X4 with front brake option
Maximum transient power	500 Hp	500 Hp	1000 Hp
Constant capability (3 min)	180 Hp	180 Hp	360 Hp
Power supply	220V / 16 A	220 V / 16 A	2 x 220 V / 16 A
Equivalent mass	230 kg	460 kg	460 kg
Weight	1100 kg	2500 kg	2500 kg
Motorbike compatibility	option		
Max speed	300 km/h		
Roller diameter	450 mm		
Track width (min/max)	920 / 2100 mm		
Wheelbase (min/max)	2335 / 3335 mm		
Max allowable weight (per axle)	2000 kg		

Power supply (except fan) :
220V / 16A with 1 brake configuration – 2 x 220V / 16A with 2 brakes configuration
Compressed air

Standard



Options



Computer minimal specifications :

Desktop running windows 8 or 10. LCD screen. 2 ethernet network boards - Rotronics can deliver the computer as an option.

All our bench are fully mounted and tested with vehicles in our factory.

All calibrations are performed before delivery.

Warranty : 1 year parts and manpower. Factory return.

Free Remonte assistance during the warranty : remote control and emailing.



ROTRONICS

110 rue des Vergers - Z.I. des Dragiez
74800 LA ROCHE SUR FORON - FRANCE

www.rotronics.com
contact@rotronics.com

Tel : +33 (0)4 50 03 08 59 - Fax : +33 (0)4 50 03 05 97