



Engine Rebuilding Equipment

Innovation Starts **HERE!**



RMC-ETS100 ENGINE TEST SYSTEM

The **RMC-ETS100** is an accurate and dependable solution to systematically test and identify most common mechanical malfunctions encountered by engine builders, assuring your products will exceed your customers' expectations.

This new innovative design offers complete freedom to customize the operator digital control panel with manual and fully automated testing programs, utilizing the latest electronics, sensors and controls to collect pertinent data for input to the onboard computer and output to the screen, USB or Network locations for analysis or printing.

Dedicated to serving your engine rebuilding equipment needs, since 1957

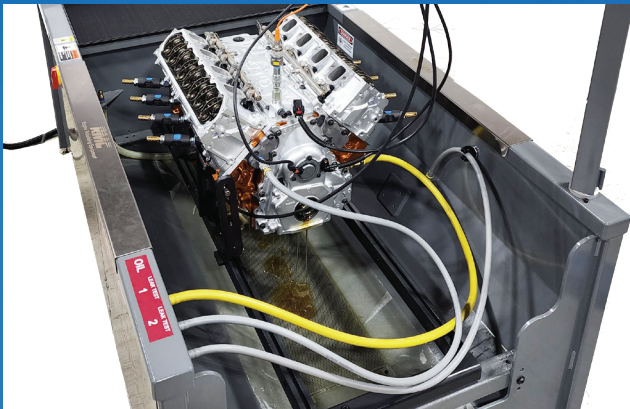
MACHINE OVERVIEW



FULL 15" DIGITAL TOUCH SCREEN

INSTRUMENTATION WITH GRAPHICAL GAUGES AND BUTTONS

- Full 15" LCD Digital touch screen for ease of set up for monitoring testing functions.
- Oil temperature, flow and filter condition monitored on screen.
- Crankshaft rotation angle graph displayed on screen.
- Movable Control panel allows operation of the machine from the right or left hand side.



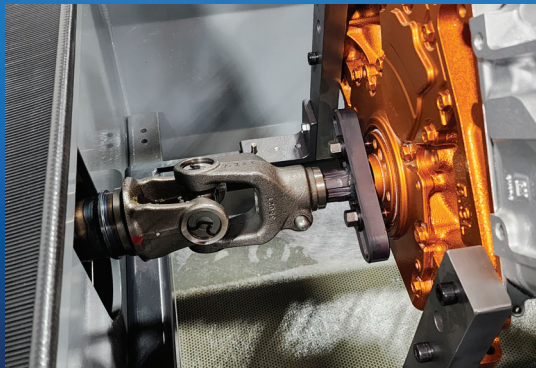
EASY ACCESS WORK AREA

SAFETY & VISIBILITY

- Extremely fast loading with adjustable block cradles and four-point mounting.

TESTING CAPABILITIES (In Suggested Order)

- Vacuum Test of coolant system for potential leak down. (No Crankshaft Rotation)
- Pre-Torque Test for pre-lubing and checking oil flows to all components, unbalanced noises, loose components.
- Torque Test for crankshaft loads looking for improper fit of most moving components.
- Run-In Test for checking oil pressure (PSI) and flow (GPM) utilizing heated filtered oil also excessive leakage and missing plugs.
- Compression Test-reads all cylinders (PSI) to the screen as Pass/Fail with a Retest option on each cylinder.



QUICK ATTACH DRIVE SYSTEM

POWER DRIVE SYSTEM

- Infinitely variable speed, reversible, constant torque drive motor. The variable frequency vector drive delivers accurate linear torque/load reporting for all RPM ranges.
- A heavy duty telescoping drive shaft with quick connect coupler to the universal crankshaft adaptor provides quick and easy setup.

STANDARD FEATURES



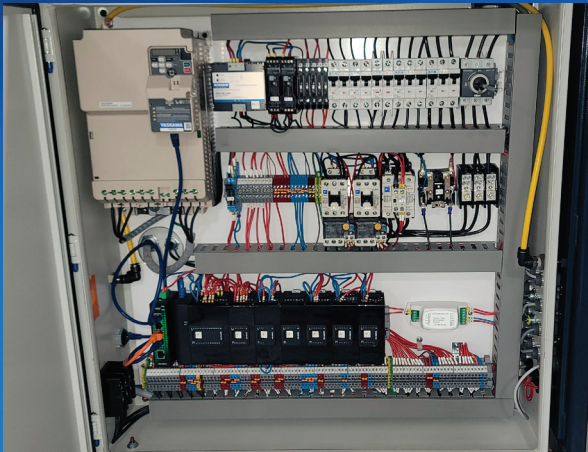
"CLEAN OIL" SUPPLY SYSTEM

Included on all RMC-ETS100's provide filtered, pressure and flow controlled oil supply that ensures consistent testing results.



DUAL STAGE 25 MICRON FILTERS

protect the engine oil supply. The filtration system includes a sensor to alert flow problems caused by dirty filters.



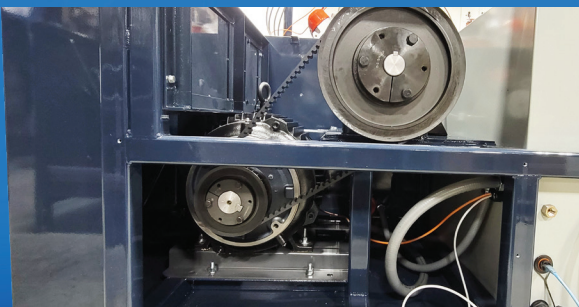
THE RMC-ETS100 MAIN ELECTRICAL PANEL

contains the latest design components that are not proprietary and can be easily sourced. The RMC designed control logic uses an array of PLC computers, data pickups and quality sensors to create an automated Engine Test Machine.



THE ETS100

Calibration testing gauges for Oil Flow & Pressure, Digital Compression and Pneumatic Pressure. For initial setup and continued calibration monitoring to maintain highest accuracy.



ENGINE DRIVE SYSTEM

the ETS100 drive system is now configured with a heavy duty 15 HP standard motor (25 HP optional) which delivers constant torque across all RPM ranges.



NEED TO TEST DIESEL ENGINES?

RMC has your total diesel testing solution...

Diesel build equipped with 15 HP standard motor (25 HP optional).

TEST AND DISPLAY SCREENS

CONTROL PANEL SETUP SCREEN

the RMC-ETS100 control is capable of full multi language operation.

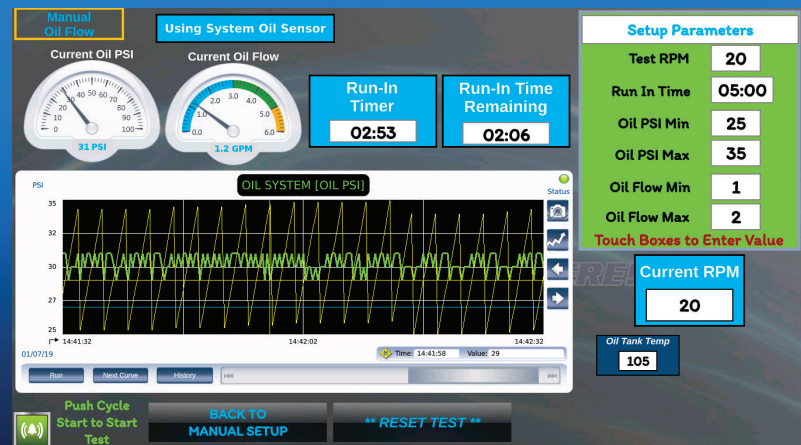


COMPRESSION DATA SCREEN

incorporates a quick pass/fail section that indicates the detail data for each cylinder. Other features include: auto or manual testing, min max (lowest or highest) cylinder PSI and graphic test RPM readout, retest all or selective retest.

ADVANCED OIL FLOW GRAPHICS SCREEN

shows graph on oil flow - oil pressure over degree of rotation. Useful for bearing issues and other oil flow associated problems.



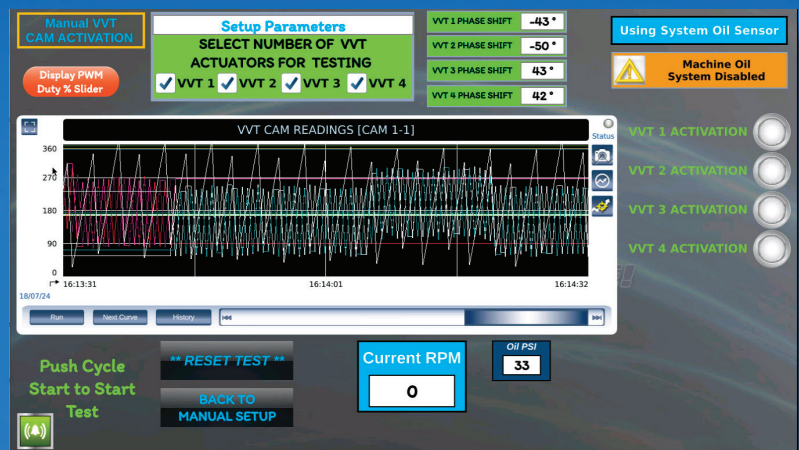
TEST AND DISPLAY SCREENS

Admin														
Load Table from SD Card														
Test Parameters														
#	Engine_Name	Leak_Test_On	Leak_Runs	Fill_Time	Leak_Down_Time	Leak_Min	Torque_Test_On	Torque_Rotation	Torque_Min	Torque_Max	Comp_Test_On	Pass_OC_Cyl	Cyl_PSI_Min	Cyl_PSI_Max
0	HEMI 5.7L W/VVT & Cyl CAN	☒	☐	45	120	25	☒	8	30	42	☒	8	155	170
1	Duramax Complete	☒	☒	60	120	23	☒	8	34	48	☒	8	295	300
2	Ford Triton V10 Complete	☐	☐	26	240	21	☒	8	25	36	☒	10	145	350
3	GM LS (Gen3)	☒	☐	25	25	26	☒	9	25	40	☒	8	178	200
4	Ford 5.4L W/VVT	☒	☐	65	140	22	☒	5	32	35	☐	0	0	0
5	GM Ecotec RunIn & Comp	☒	☒	28	365	30	☒	8	25	29	☒	4	145	165
6		☐	☐	0	0	0	☐	0	0	0	☐	0	0	0
7		☐	☐	0	0	0	☐	0	0	0	☐	0	0	0
8		☐	☐	0	0	0	☐	0	0	0	☐	0	0	0
9		☐	☐	0	0	0	☐	0	0	0	☐	0	0	0

CONTROL PANEL AUTO TESTING PROGRAM PRESETS SCREEN

provides an easy method to program specific testing parameters for operator recall. For running auto testing mode. Can be locked out to operator.

ADVANCED CAM/CRANKSHAFT TIMING SCREEN provides data checks to ensure the engine cam/crank timing is correct and no components are faulty or missing. This test requires an optional engine specific test wire harness.

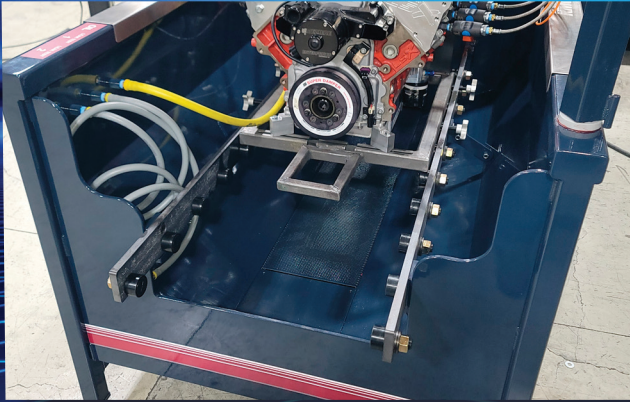


Test Results														
Selected Program:3.7L Hemi W/Cyl Can & Cam Entered Serial: X001IH0Y6P														
Leak Test Results														
No. of Banks Tested =		1 Overall Test Results= PASSED												
Bank No.	Tested PSI	Bank Test Results		Min PSI										
#1	38	PASSED		20										
#2														
Torque Test Results														
Overall Test Results= PASSED														
Max Trq. Measured			Deg. @ Max			Max Torque Setting								
38 N.m			30 °			42 N.m								
Cyl. Cancel Test Results														
Overall Test Results= FAILED														
Cyl. No.	Sol. Valve Test Result													
#1	FAILED													
#4	FAILED													
#6	FAILED													
#7	FAILED													
PRM VCT Test Results														
Overall Test Results= FAILED														
Cyl. No.	VCT Test Results													
#1	FAILED													
#2	FAILED													
RunIn Test Results														
Overall Test Results= PASSED														
Min PSI= 42 PSI					Max PSI= 50 PSI									
Test RPM					Test Time									
260 RPM					03:00									
Avg. Oil PSI			Avg. Oil GPM			Oil Temp.								
0 PSI			1.5 PSI			104 PSI								

ENGINE TEST DATA RESULTS SCREEN

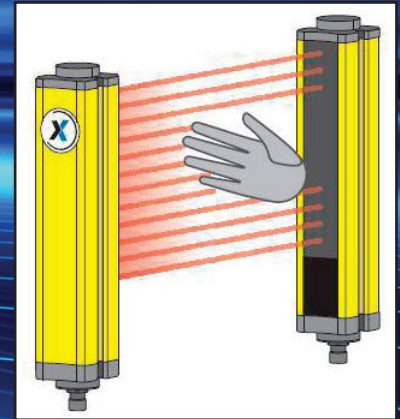
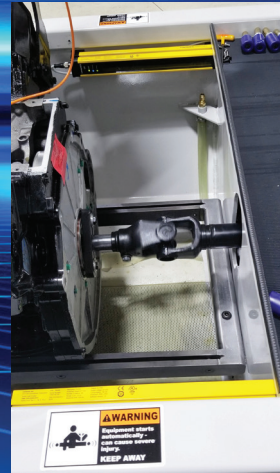
this screen provides all the pertinent data from the engine test performed. This data may be printed or saved to database for archive or other purposes.

AVAILABLE OPTIONS



LARGE WORK AREA

enables fast connectivity of all test leads and good visibility for leak tests. Shown with optional roller pallet for the Production Rebuilders.



SAFETY SYSTEMS

with optional Safety Light Curtains for unplanned disconnect and breakage and advanced operator protection. RMC's ETS machines have many safety and protection systems to protect the operator and your product.

COMPLETE ENGINE TESTING KITS

for most engines are available on request. These kits typically include spark plug or injector adaptors and an array of block off plates, leak test and oil feed adaptors.



OPTIONAL ADVANCE CAM/CRANK TIMING

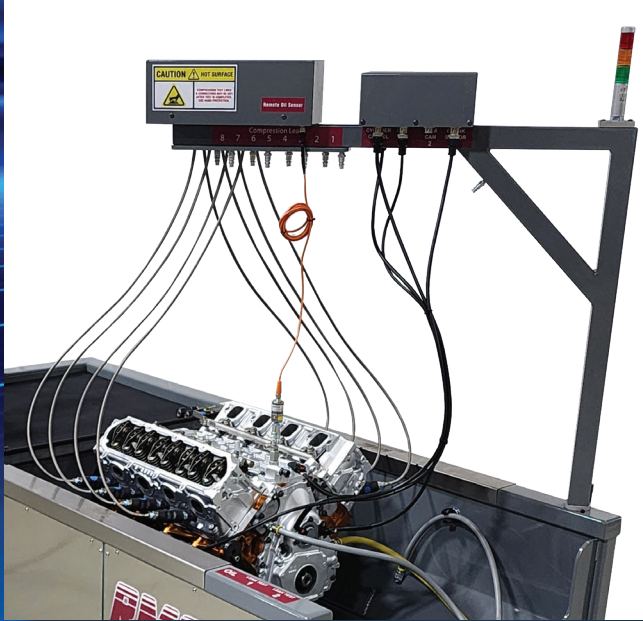
checks timing on multi cam engines. Engine specific testing wire harnesses are available. Can check and monitor individual cam and crankshaft sensor positions.



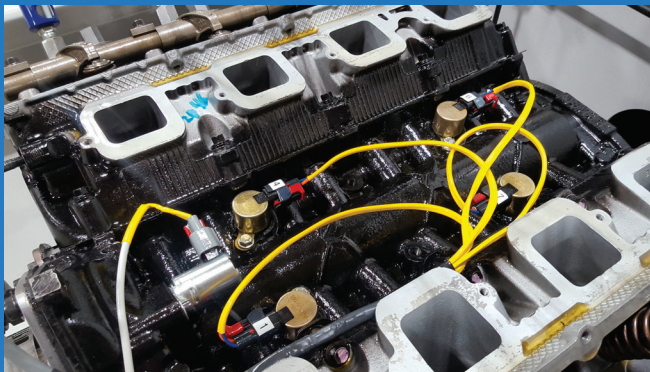
COMPRESSION CHECKING FEATURE

quick disconnect braided hoses for compression testing couplings for up to 10 cylinder engines.

AVAILABLE OPTIONS



8 (Opt. 10) COMPRESSION CONNECTIONS Quickly connect and test up to 10 cylinders at the same time for efficient, automated and accurate compression test results.

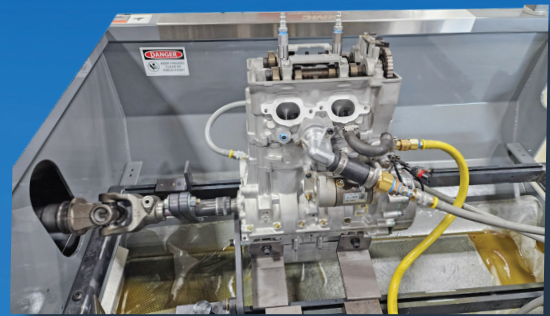


ACTIVE FUEL MANAGEMENT TESTING (DoD, MDS, AFM) (5.7L Hemi shown) is an effective way to test whether the cylinders are deactivating properly.



BAR CODE SCANNER

Allows you to scan and keep the most accurate information about the engines you are rebuilding.



UNIVERSAL ENGINE SETUPS

The machine's Universal Cradle, Drive and Test Connectors allow for testing many variations of engine assemblies.



REMOTE OIL PRESSURE SENSOR

is used in conjunction with the remote oil pan to verify the actual oil pressure being produced from the engine pump at set RPM.

RMC-ETS100 SPECIFICATIONS

		(54 Inch)	(65 Inch)
Model number		ETS100	ETS100
Machine Weight		1500 lbs/659 Kg	1780 lbs/807 Kg
Main Drive Motor		15HP 25HP	15HP 25HP
Voltage		208 – 240 VAC	208 – 240 VAC
Phase		3 Phase, 3-wire	3 Phase, 3-wire
Cycle		60 Hz	60 Hz
Amps	15HP 25HP	60 FLA 85 FLA	60 FLA 85 FLA
Oil Capacity		10 Gallons/37.8 Liter 13 Gallons w/opt. clean oil tank	13 Gallons/49.2 Liter 16 Gallons w/opt. clean oil tank
Air Pressure Required		110 PSI @ 5 CFM	110 PSI @ 5 CFM
Floor Space Recommended		150" x 90"/3810 mm x 2286 mm	160" x 90"/4064 mm x 2286 mm
Shipping Weight	15HP 25HP	1900 lbs/862 Kg 2300 lbs/1043 Kg	2180 lbs/989 Kg
Shipping Size	15HP 25HP	96" L x 51" W x 86" H 103" L x 59"W x 86" H	111" L x 54" W x 53" H
PERFORMANCE			
Test Engine Max weight		1,200 lbs	1,200 lbs
Test Engine Max Length		45 Inches	53 Inches
Test Engine Max Width		30 Inches	30 Inches
Test Engine Max Height		40 Inches	40 Inches
Max Test RPM		350 RPM	350 RPM
Max Compression Level		500 lbs	500 lbs
Max Vacuum / PSI Leak Test		20 Hg / 30 PSI	20 Hg / 30 PSI
Oil Tank Temperature		107 F	107 F
Max Oil Flow		6 GPM	6 GPM
Max Oil Pressure		85 PSI	85 PSI



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In order to bring you the most advanced features as soon as possible, all features, descriptions and technical specifications are subject to change