SMARTSPEED™

AUTOMATIC | TORQUE LIMITED SPEED REGULATED

HOFMANN®
A division of Snap-on. Inc

TECHNOLOGY AUTOMATICALLY SETS THE **MAXIMUM POSSIBLE SPEED** BY OPTIMIZING THE TORQUE APPLIED TO THE WHEEL

SMARTSPEED™
DON'T FEAR
THE DANGER ZONE

- **ONE PEDAL**
- **ONE POSITION**
- **AUTOMATIC SPEED CONTROL**

WHY DO I NEED A smartSpeed™ tire machine

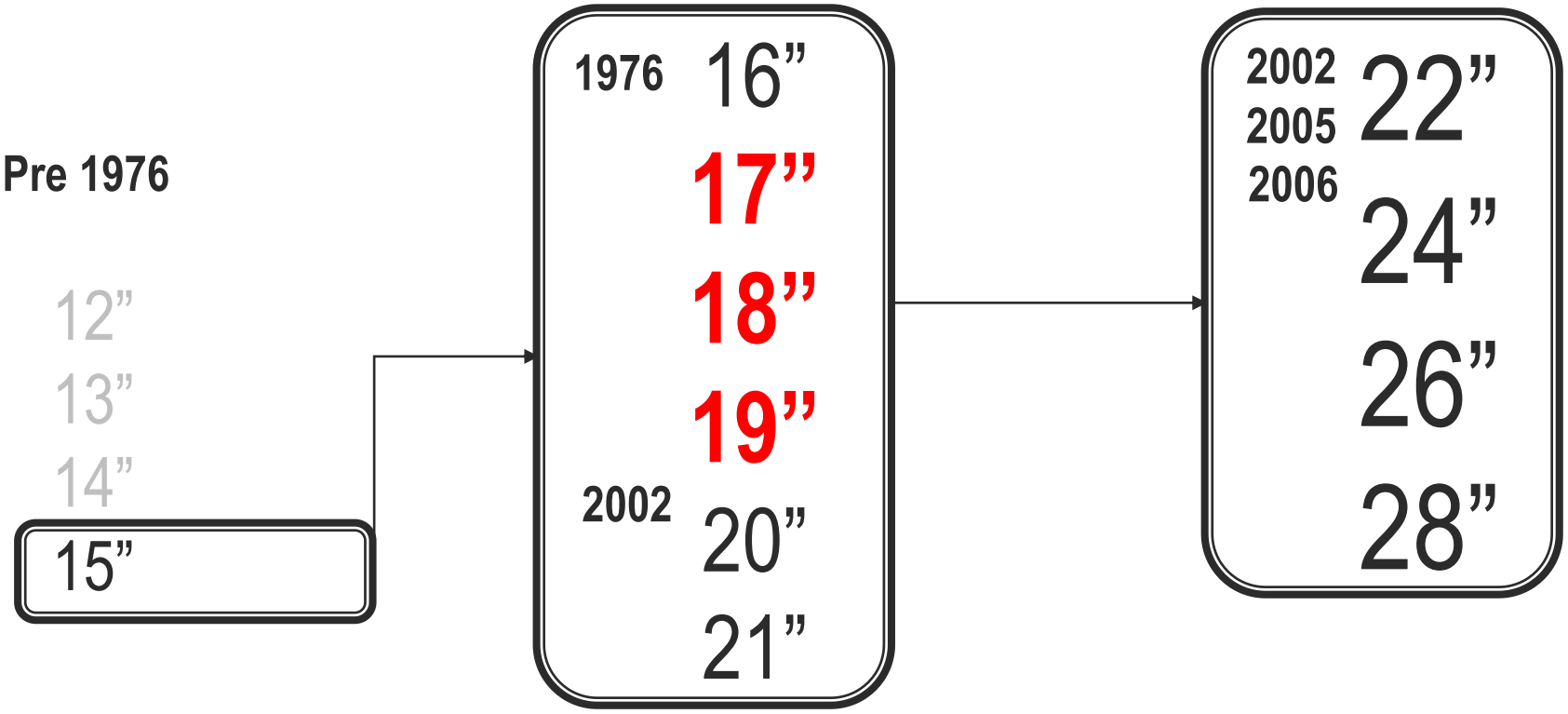
- **INCREASE IN PRODUCTIVITY**
- **EASE OF USE**
- **NO WHEEL DAMAGE**
- **NO TIRE DAMAGE**

GET THE JOB DONE RIGHT THE FIRST TIME

WHEEL SIZES

Wheel sizes where difficult UHP and run flat tires can be found

- **WHEEL SIZES**



- **RUN FLAT**
- **EXTENDED MOBILITY TIRES**
- **ULTRA HIGH PERFORMANCE TIRES**

WHEEL DAMAGE CAN BE COSTLY

STEEL

Mostly found on Police Cars, steel wheels are still around. Some clad wheels are steel with a plastic bonded chrome cover

ALLOY PAINTED

Very common today. Scratches are highly visible, extra care must be taken. Aftermarket wheels sometimes cannot be replaced as they have limited production. Damaging “a” wheel could mean replacing all four wheels.

SPLIT

FA1000 allows mounting and demounting without separating the rim

WHEELS

CATEGORY: Scratch sensitive and expensive

Clad wheel with closed center

Chrome clad with closed center require the use of pin plates and collets to insure proper mounting and not damage the clad surface.

Chrome clad is consist of a cosmetic cover that is bonded to a steel or aluminum wheel and is non-removable

These types of wheels are mostly found on domestic products and require special HANDLING when mounting on a balancer or tire changer

WHEELS

CATEGORY: Difficult and expensive

2016 Ford GT 350
Carbon fiber wheel

Carbon fiber wheels come in an assortment of configurations. The Ford GT 350RR wheel has an aluminum center core and hollow carbon fiber spokes and wheel.

This is a standard mount wheel which must be mounted on a center post tire changer using a pin plate adapter and not a centering cone.

Adjustable pin plate adapter for clad, carbon fiber, and reverse mount wheels

EAA0358G58A

TORQUE VS RPM

Torque requirements are different for every category of tire and wheel assembly

Aspect ratio and tire type are two important factors to consider when selecting a tire changer

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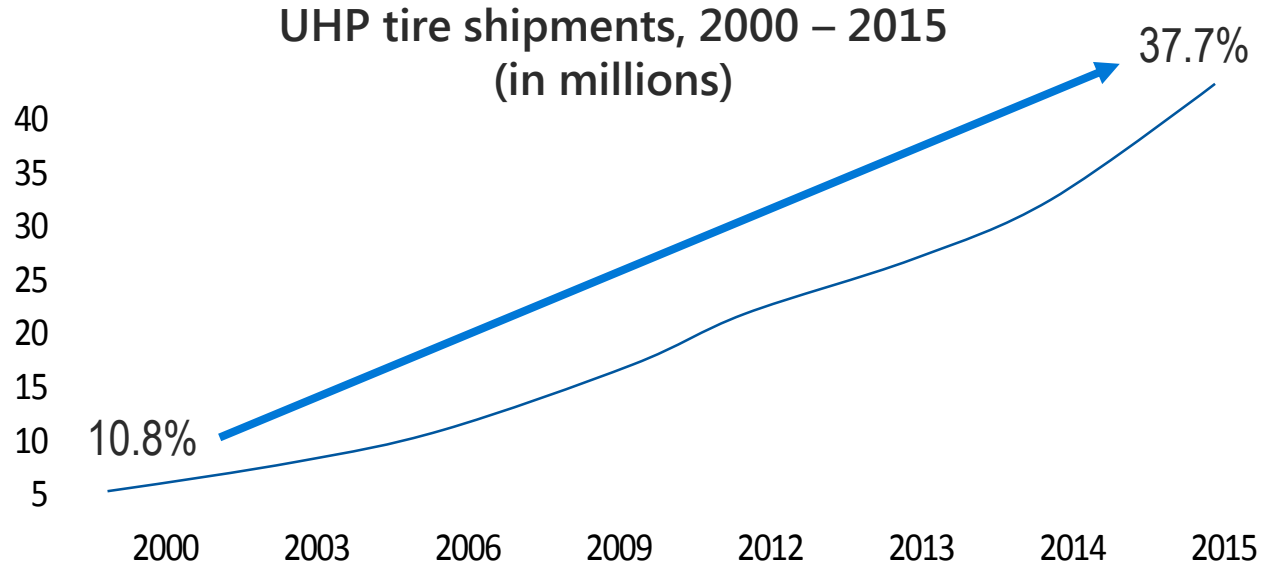
TIRE TYPES

Vehicle manufacturers use more UHP tires

Every year, UHP tires represent a greater percentage of the overall market. In 2000, the number was only 10.8%; in 2015, it was 37.7%.

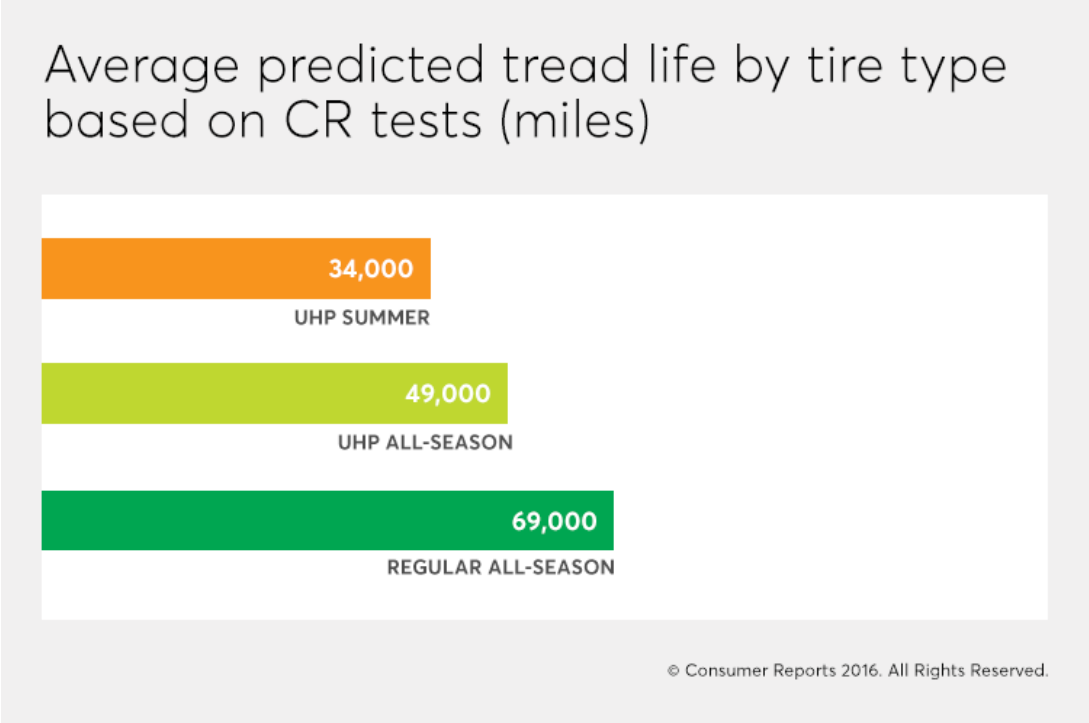
Tire and wheel assemblies are becoming more difficult to handle. smartSpeed™ makes changing tire easy and fast.



Source Modern Tire Dealer web site Posted on February 11, 2016

TIRE TYPES

Vehicle manufacturers use more UHP tires and they wear faster



BUILT FOR SPEED, NOT LONGEVITY

We fitted UHP tires to eight 2015 Ford Mustangs and logged 16,000 miles per tire over public roads in Texas for our treadwear test. Despite rotating the tires and checking inflation and alignment every 1,000 miles, we found that the UHP tires wore out relatively quickly.

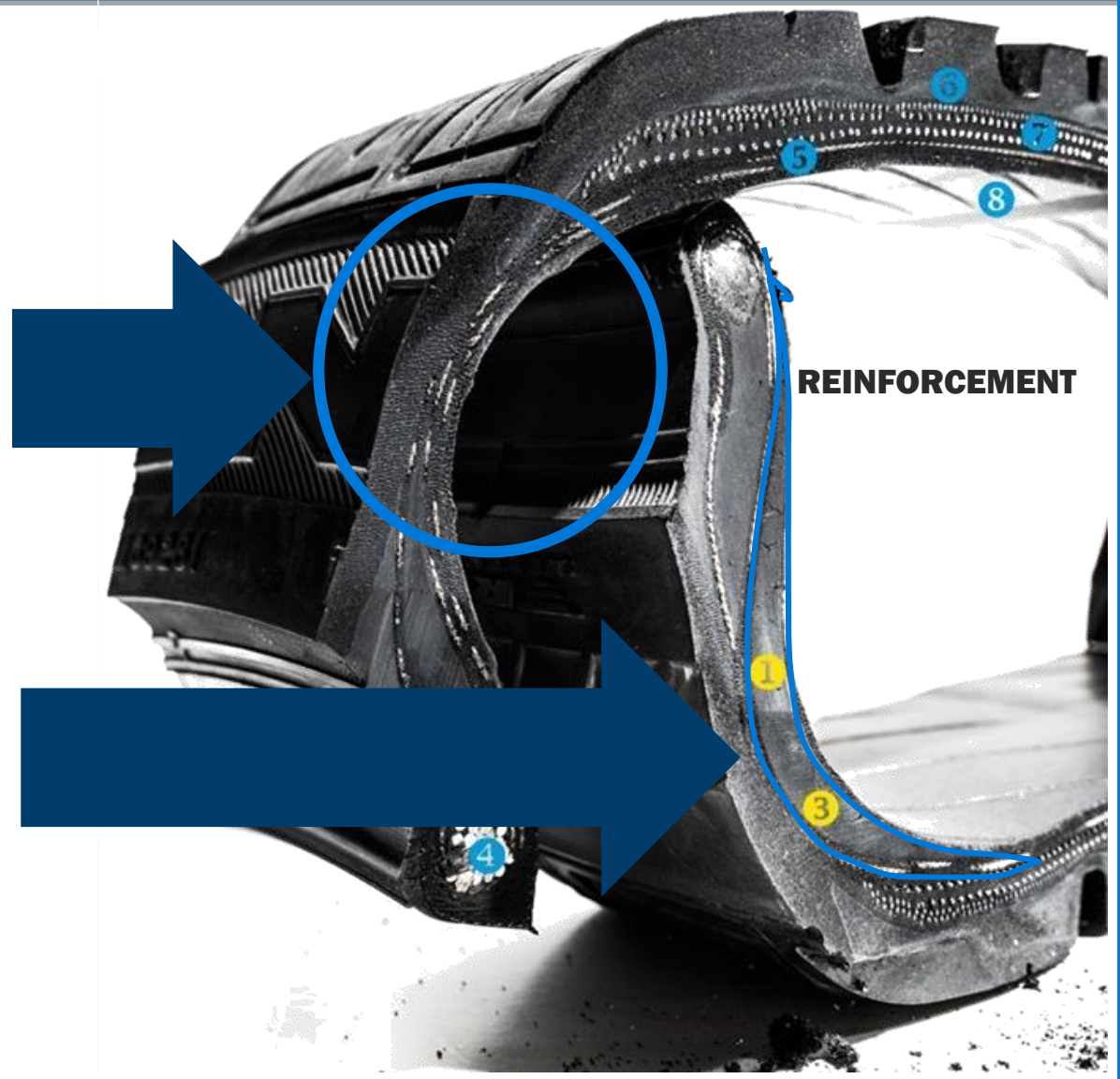
UHP tires come in summer, winter, and all-season variants. As you might expect, UHP summer tires are optimized for warm weather and are designed to provide the ultimate performance in dry and wet stopping as well as in cornering. But they lose grip as temperatures drop, and they deliver a harsher, noisier ride than regular all-season tires. In our treadwear tests, UHP summers lasted, on average, about 34,000 miles, with some projected to wear out in just 25,000 miles.

Consumer Report November 25, 2016

TIRE DIFFERENCES

- **REGULAR OR STANDARD TIRES** have soft and flexible sidewalls along with a pliable carcase. conventional tire changers can handle these types of tires with minimum effort

- **RUN FLAT TIRES** have reinforcements in the sidewalls making the tires difficult to remove and install. in addition, the carcase is not pliable. conventional tire changers struggle with these types of tires



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DON'T FEAR THE DANGER ZONE

TOO MUCH SPEED AND TORQUE ON START UP CAN RIP THE TIRE

smartSpeed™ greatly reduces the chances of this happening. The torque required to rip A bead like this, exceeds the machine limit of approximately 1200 nm. smartSpeed™ will stop before damaging the tire

Tire bead rip caused by forcing the rubber against the tool and applying excessive torque to the point where the tire slips under the tool and cuts the rubber

This is a run flat tire, on a standard single or two speed table top tire changer. The tire and wheel assembly exceeds the machines capacity.

TOO MUCH SPEED AND TORQUE AT THE END OF THE MOUNTING PROCESS CAN RIP THE TIRE

smartSpeed™ monitors the amount of torque needed during mounting and will stop the tire changer if the force is excessive, allowing the technician to reposition the tire in the drop center and proceed to mount the tire

The danger zone when mounting a new tire. In this case, the smartSpeed™ stopped the tire changer and prevented tire from sliding underneath the tool and ripping the bead

Incorrect procedure, the tire is not in the drop center, excessive pressure is applied to the mount\demount head, smartSpeed™ stops the machine

SMARTSPEED™

DON'T FEAR THE DANGER ZONE

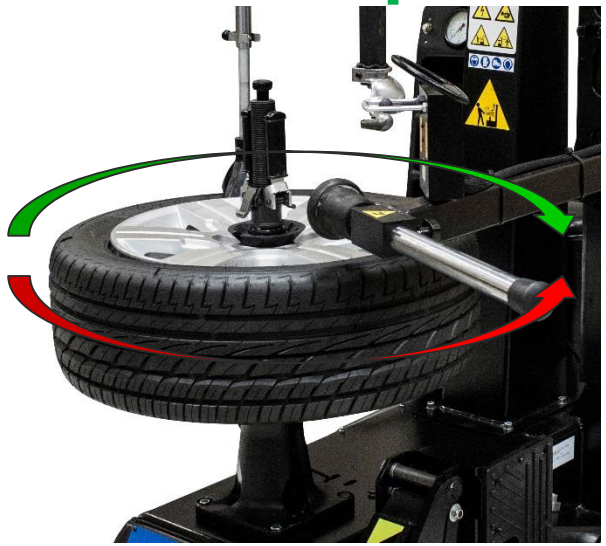
VARIABLE SPEED AND TORQUE

- Single speed machines are slow
- Two speed machines are faster but require a highly trained technician to operate

smartSpeed™ has torque variable forward speed and one reverse speed and does not require a highly trained technician to operate

Highest RPM in the industry for center post style tire changer

CW 7 – 20 rpm



CCW 7 rpm

7 to 20 RPM clockwise rotation and 7 RPM counter clockwise (reverse)

THIS ILLUSTRATES THE DIFFERENCE IN ROTATIONAL SPEED

Fixed rotational speed non torque sensing | slow |low production

7 RPM

Fixed rotational speed non torque sensing |fast | no control on applied forces | high production

14 RPM

smartSpeed™ torque sensing adjustable speed | faster | high volume and high production | force controlled

0-20 RPM

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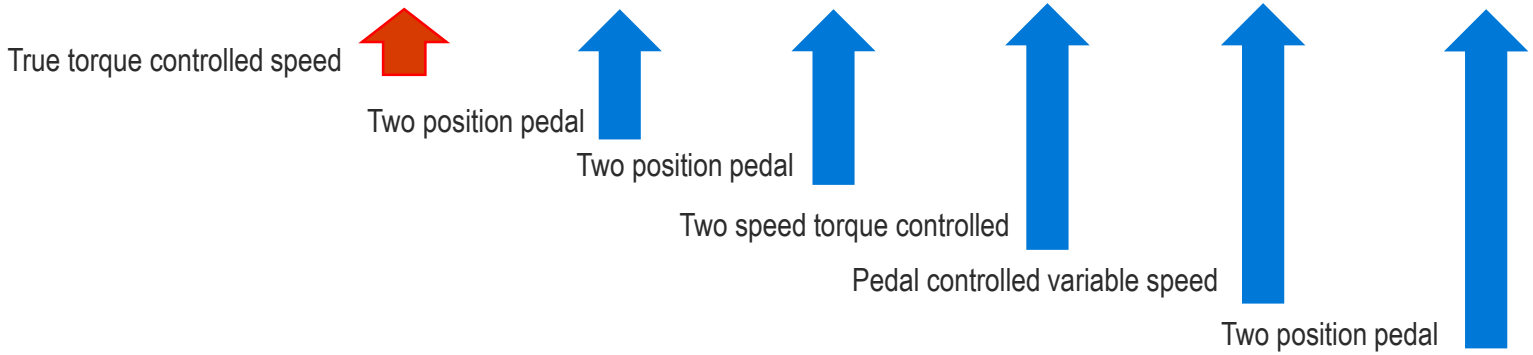
DON'T FEAR THE DANGER ZONE

Similar but not equivalent tire changers

COMPETITIVE INFORMATION

Brand	Hofmann	BOSCH	CEMB	M&B	RAVAGLIOLI	CORGHI
Models	SmartSpeed™	TCE 4430	MATIC series	TC 522-525-528 Motoinverter	D models	Center post
High speed	20 rpm	15 rpm	14 rpm	17 rpm	15 rpm	18 rpm
Low speed	7 rpm	7 rpm	7 rpm	10 rpm	0	7 rpm
Low speed for critical task	Yes - 7 rpm	Yes - 7 rpm	Yes - 7 rpm	No	No	Yes - 7 rpm
Speed variation	Automatically adjust the maximum speed depending on the torque	2 positions of the pedal	2 positions of the pedal	Automatic switch from 17 to 10 depending by the torque	Speed depends on the pressure on the pedal	2 positions of the pedal
Speed controller	Inverter	Inverter	2/4 poles motor	Inverter	Inverter	Inverter



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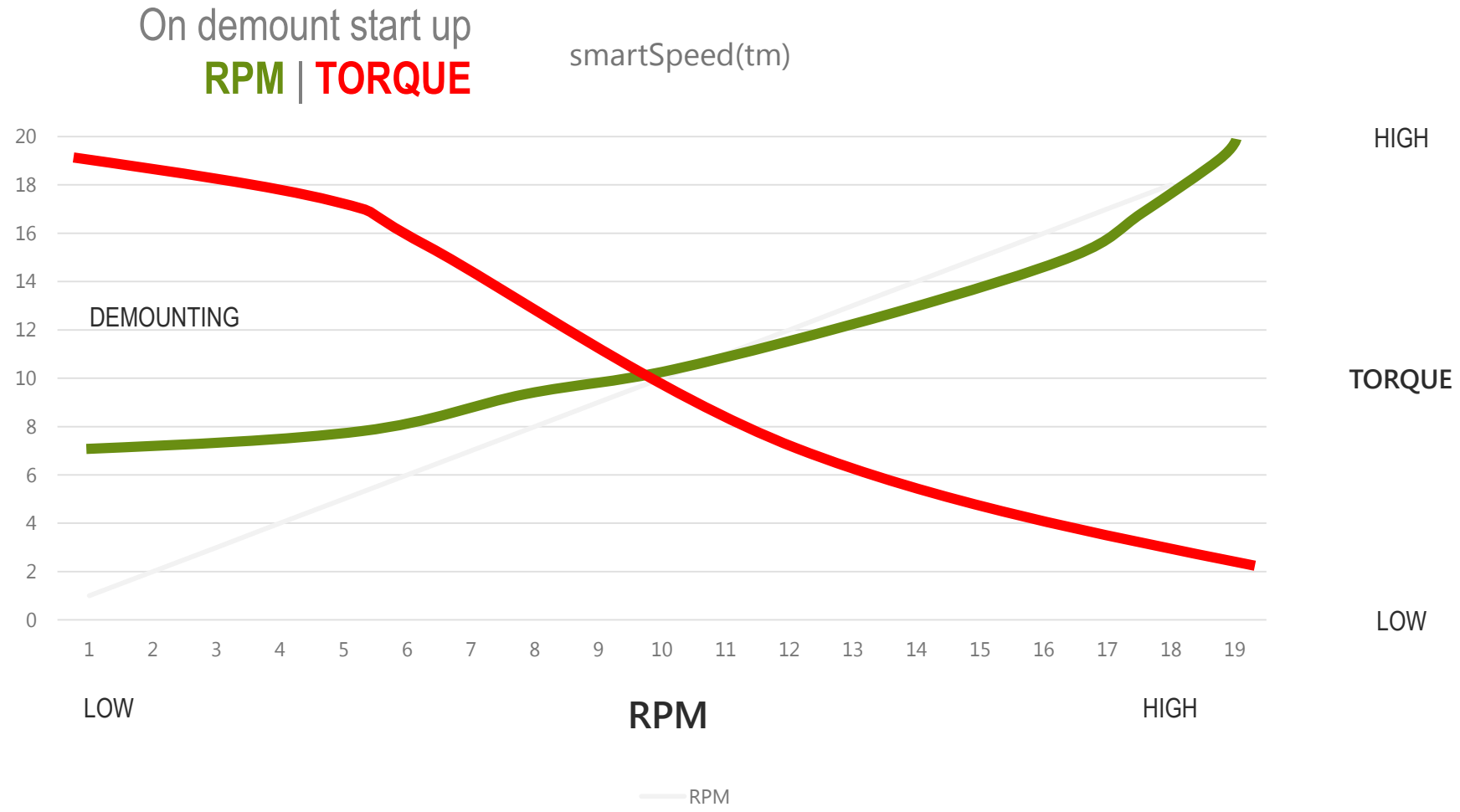
DEMOUNTING

smartSpeed™ provides smooth start ups with low speed and high torque then changes progressively towards adjusting and regulating the rpm and torque maximum performance



SMARTSPEED

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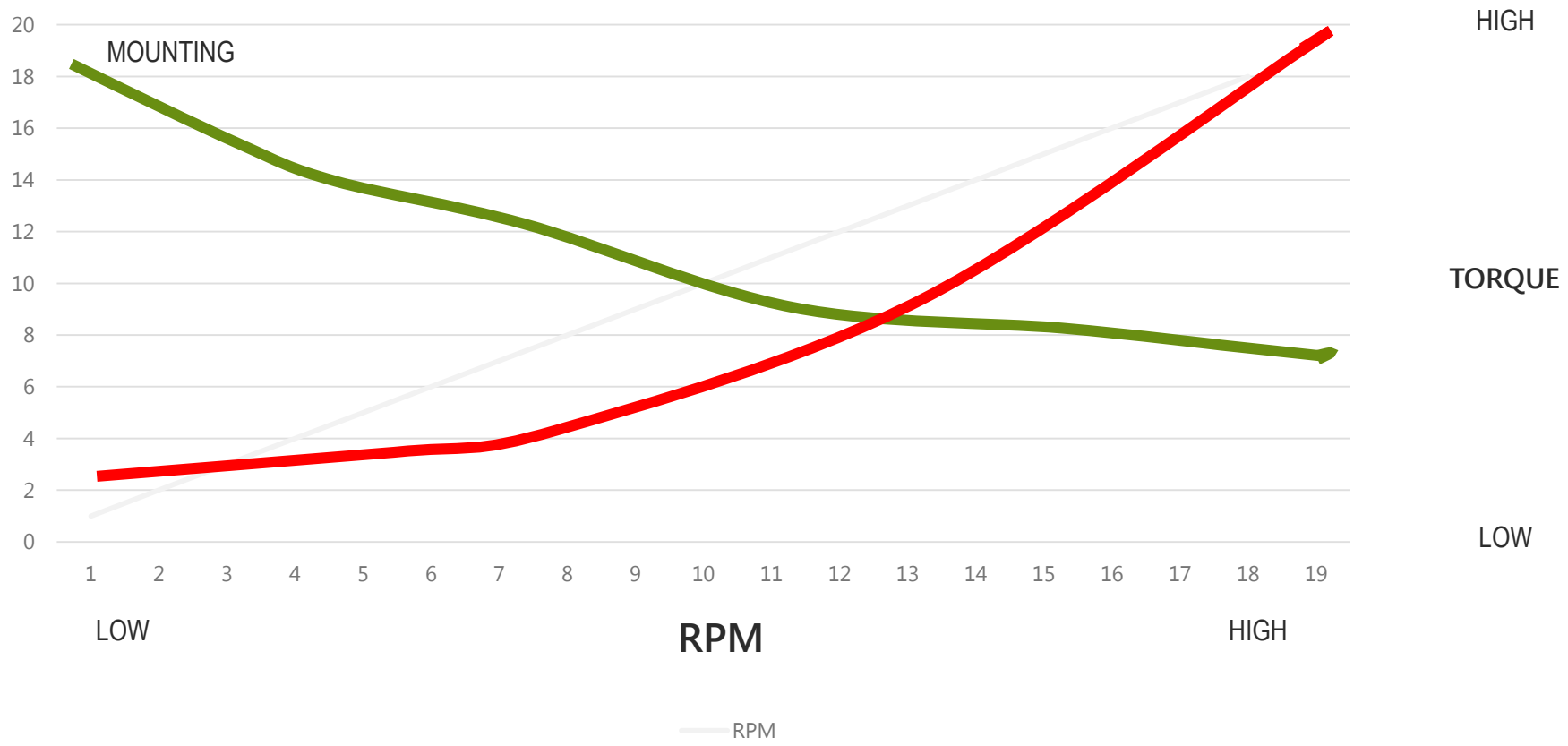
MOUNTING

smartSpeed™ provides fast start ups with high speed and low torque, then progressively adjusts the RPM and torque towards the end of the mounting cycle to prevent tire damage

On tire mounting start up

RPM | TORQUE



RPM vs TORQUE

WHATCH IT HERE

Here is a short smartSpeed™ video using a turn table style tire changer

Torque controlled tire mounting for a smooth and damage free tire mounting

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CENTER POST TIRE CHANGER WITH smartSpeed™

ONE PEDAL, ONE POSITION

smartSpeed™ does all the work by automatically regulating the speed and increasing the torque on start up and then decreasing the torque and increasing the speed for faster tire removal

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HOFMANN
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smartSpeed™ Tire Changers

HOFMANN

Automotive Service Equipment

Hofmann's monty® 1625 Two-Speed tire changer is designed for high-volume tire shops, multi-bay repair shops and car dealerships. The monty 1625 series swing-arm tire changers feature 24" outer-wheel clamping standard (28" with optional adapters). The advantage of 14 RPM allows the technician faster throughput through the bay. These tire changers feature a four-jaw clamping chuck which is self-centering and clamps wheels with either a 26" inner or 24" outer diameter.

Monty® 1625 with smartSpeed™

Hofmann's monty® 3550 series of high-performance tire changers feature the industry's most advanced capabilities to service a wide variety of wheel and tire assemblies.
The monty 3550 series is specifically designed to change low-profile, high performance and run-flat tires maximizing a shop's versatility.

Monty® 3550 with smartSpeed™

The monty® 8100s center post tire changer is designed for easy use with minimal training of technicians reducing shop overhead and adding to your bottom line. Traditional center post design coupled with Hofmann's innovative feature set makes this tire changer highly productive and reduces the risk of wheel damage.

Monty® 8100S with smartSpeed™

http://www.Hofmann-usa.com

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CENTER POST TIRE CHANGER WITH smartSpeed™

TECH SPECS

Monty® 1625 with smartSpeed™

Tower technology	Swing arm
Clamping System	Turntable & clamping jaws
Tool vertical positioning	Pneumatic
Jaw type	Adjustable - Sliding
Clamping range	10" - 26"
Outside clamping range	12" - 26"
Inside clamping range	10" - 24"
Rotation speed	7 – 18 RPM
Capability	70 kg
Power supply	230 VAC 1Ph 50/60 Hz
Weight	805 lbs

TECH SPECS

Monty® 3550 with smartSpeed™

Clamping range	12" - 28"
Outside clamping range	12" - 26"
Inside clamping range	12" - 28"
Capability	70 kg
Power supply	230 VAC 1Ph 50/60 Hz
Dimensions LxWxH	75.6" x 67.7" x 89"
Weight	975 lbs