



Think threads with YAMAHA YMW-U.S.A. TODAY

NEWSLETTER FROM YAMAHA MFG. CO., LTD. & YMW TAPS USA

VOLUME 2 July 2015

Greetings from Glynn

by Glynn Simmons
Yamaha North America
310-994-6591

Consistent with the philosophy of Yamawa International Company, LTD. and Yamawa Manufacturing, Corp. to continue serving the high production metal working industries, a new series of taps has been developed for medium hardness carbon steel materials.

The MHSL is specifically designed for the carbon steels used in the motor vehicle industries.



The **MHSL** tap is ideal for the automotive, off road, auto racing, motorcycle, farming and construction equipment manufacturers to thread through holes in tough steels on difficult applications.

Medium Hardness = MH

MHSL

THE CHIP EJECTION IS IMPROVED WITH A 2 STEP TAPERED HELICAL FLUTE DESIGN.



The 2-step-helical tapered flute design helps control the chip and pushes them forward out of the hole smoothly.

IMPROVED THREAD SURFACE FINISH



PO no surface treatment first tapping internal screw thread



EXCELLENT SURFACE FINISH

THE OUTSTANDING SMOOTH CUTTING PERFORMANCE OF THE MHSL TAP PRODUCES A FAR BETTER THREAD SURFACE FINISH AND A SUPERIOR INTERNAL THREAD.



SL + TIN coating first tapping internal screw thread

The **MHSL** has become one of the leading taps used in the automotive industry worldwide.

The **MHSL** is designed with a cobalt HSS base with a thin film coating developed specifically for medium hardness carbon steels.

The unique helical flute and special coating of the **MHSL** taps are ideal for through hole tapping in medium hardness carbon steels.

These new **MHSL** taps cut medium hardness carbon steel with great chip control, excellent tool life and produce a superior thread finish.

ALL THAT TECHNOLOGY AT A GREAT PRICE.



YAMAHA WANTS YOU TO TRY THESE AMAZING NEW HIGH PERFORMANCE **MHSL** TAPS FOR MEDIUM HARDNESS CARBON STEELS AND SEE THE DIFFERENCE YOURSELF.

CALL YMW TAPS U.S.A. 855-969-8721 BETWEEN JULY - AUG 2015 AND WE'LL SEND YOU A FREE MHSL TAP TO COMPLETE YOUR TESTING.

YOU TOO WILL BE AMAZED AT THE PERFORMANCE.

PLACE A TEST ORDER NOW AND WE WILL GUARANTEE YOUR TAPPING SATISFACTION WITH THE FIRST TAP.

AFTER YOUR SUCCESSFUL TESTING YOU CAN CONTINUE TO RECEIVE THE PROMOTIONAL PRICING ON THE MHSL TAPS FROM JULY THROUGH AUG 2015.

In This Issue

MHSL For Tough Steels.....1
News In tapping Steels.....1

Thinking Threads.....2

YMW TAPS U.S.A.

855-YMW-USA1 855-969-8721

www.ymw tapsusa.com

Medium Hardness = MH

MHSL

THE **MHSL** IS DESIGNED TO THREAD MEDIUM HARDNESS CARBON STEELS UP TO 30Rc IN 1030 TO 1055, 1525 TO 1541 AND 86L20 TO 86L40.

■ **Features**

- **Long tool life...**The combination of a HSS-Co base material (featuring wear resistance materials) and special coating achieve high durability and tool life.
- **Improved chip ejection...**Yamawa has created a unique 2-step helical flute design in the MHSL taps that ejects the chips and give great chip control in through hole tapping.
- **Good surface roughness...**The superior cutting performance results in a excellent surface finish.



High carbon steels
30~60 (SFM)

Thermal refined steels
30~60 (SFM)

Recommended Tapping Speeds depending on Materials



(Unit: inch)

Table of dimensions and sizes

DIN lengths with ANSI shank dimensions

size	class	L	ℓ	ℓ _n	D _s	number of flutes	code
M6 X1	D5	3.150	0.591	1.181	0.255	3	LS6.0MEFCL5
M8 X1.25	D5	3.543	0.748	1.382	0.318	3	LS8.0NEFCL5
M10X1.25	D6	3.937	0.906	1.929	0.323	3	LS010NFFCL5
M12X1.25	D6	4.331	1.024	2.126	0.367	4	LS012NFFCL7
M14X1.5	D7	4.331	1.024	2.126	0.429	4	LS014OHFCL7
M16X1.5	D7	4.331	1.024	2.126	0.480	4	LS016OHFCL7

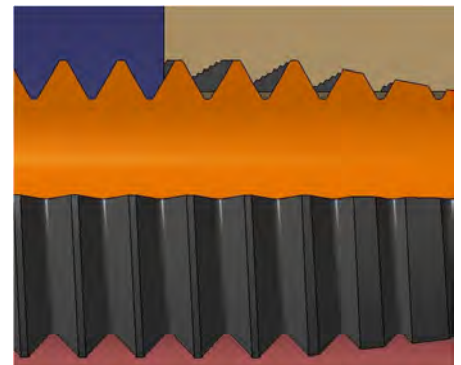
TECHNICAL TAP TIPS

THE THREAD PITCH OF A TAP IS NORMALLY MORE ACCURATE THAN THE FEED MECHANISM OF A MACHINE.

WHEN RIGID TAPPING, OVER FEEDING OR UNDER FEEDING A TAP WILL CAUSE AN INCORRECT THREAD FORM LIKE THE ONE TO THE RIGHT. THE THREADS WILL LOOK STEPPED AND BOTH THE GO AND THE NO GO GAGE WILL GO INTO THE THREAD AND THE PITCH DIAMETER WILL BE INCORRECT.

WHEN USING RIGID TAPPING HOLDERS, THE MACHINE LINEAR ENCODER MUST BE AS ACCURATE AS THE THREAD PITCH OF THE TAP. A POOR QUALITY THREAD IS PRODUCED IF THE LINEAR ENCODER CAUSES AN INCONSISTENT FEED. YAMAWA RECOMMENDS USING A RIGID TAPPING HOLDER ON A CNC MACHINING CENTER WITH THE [MHSL SERIES TAPS](#).

IF THE ENCODER ACCURACY IS IN QUESTIONABLE OR THE MACHINE FEED IS INCONSISTENT, USE A YAMAWA ZELX SS TAP AND A TAP HOLDER WITH A RADIAL FLOAT AND TENSION/ COMPRESSION FEATURE TO COMPENSATE FOR THE INACCURACY OF THE FEED MECHANISM OF THE MACHINE.



YMW TAPS U.S.A.
855-YMW-USA1 855-969-8721
www.ymw tapsusa.com