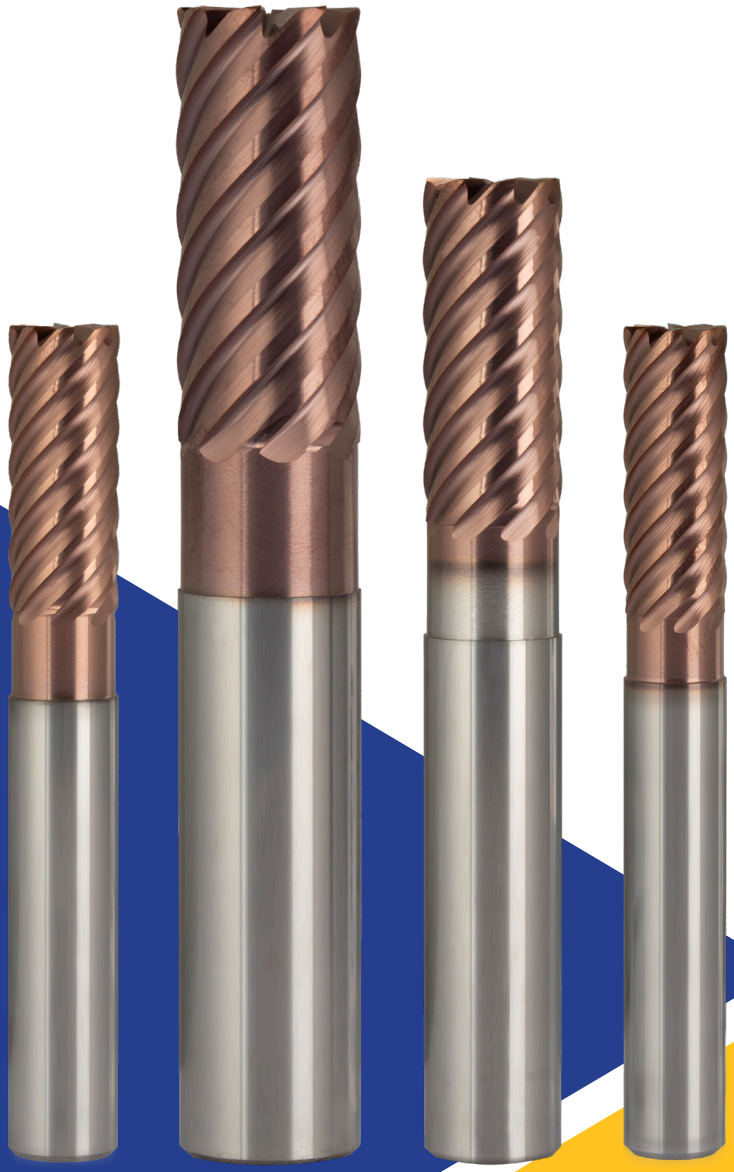
M.A. FORD
High Performance Cutting Tools

*Where **high performance** is the **standard***®

TuffCut® XM

Series XMH

8 Flute Radius End Mill
High-Hard Steels



www.mafordeurope.com

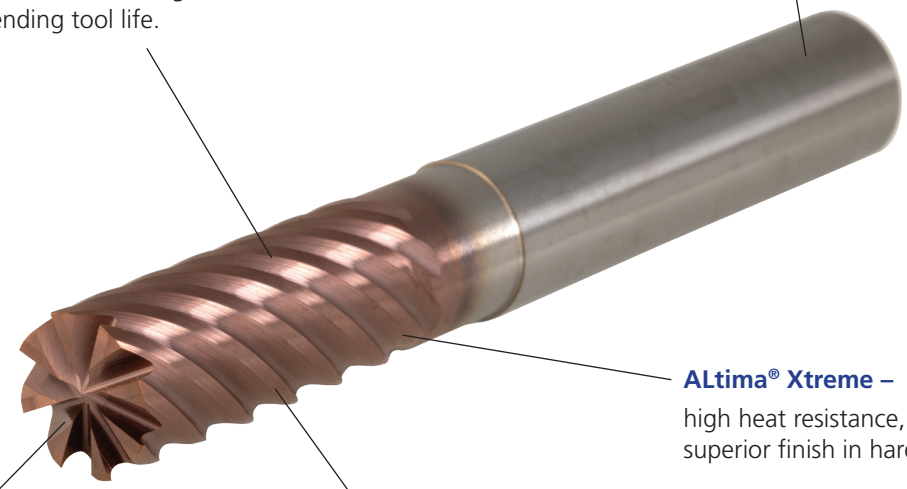
TuffCut® XM Series XMH

Hard sub-micron carbide grade

A high-hardness sub-micron substrate enhances wear resistance for extended tool life in hardened steels.

Negative radial geometry

increases edge strength for short-chipping hardened steels, reducing chipping and extending tool life.



ALtima® Xtreme –

high heat resistance, longer life, and superior finish in hardened steels.

8 flutes

up to 33% higher feed potential vs 6-flute tools in stable machining conditions.

High helix angle (45°)

smoother cutting, reduced vibration, improved surface finish, and better chip flow.

The XMH end mill features an advanced 8-flute geometry engineered specifically for steels up to 70 HRC. This high-stability cutting design delivers exceptional wall accuracy, reduced vibration, and superior surface finishes in mould, die, and hardened tool-steel applications, even under demanding hardened conditions.

ALtima® Xtreme coating – higher heat resistance, lower wear, greater chipping resistance, and longer tool life in hardened steels.

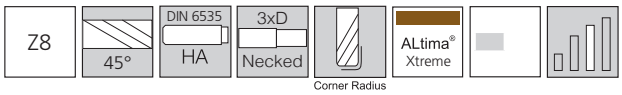
Applications

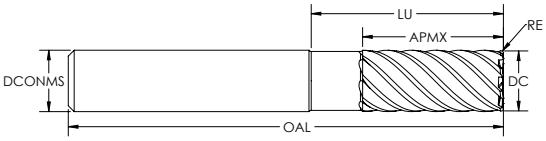
Suitable for roughing, semi-finishing, and finishing, delivering consistent results on parallel walls, 3D features, and flat faces.

Suitable Materials

H

TuffCut® XM Series XMH





Non-Centre Cutting

Tool No.	DC	OAL	APMX	LU	RE
XMHM0602N3-R0.2AX	6.0	63.0	13.0	20.0	0.2
XMHM0602N3-R0.5AX	6.0	63.0	13.0	20.0	0.5
XMHM0802N3-R0.2AX	8.0	65.0	19.0	26.0	0.2
XMHM0802N3-R0.5AX	8.0	65.0	19.0	26.0	0.5
XMHM1002N3-R0.2AX	10.0	75.0	22.0	32.0	0.2
XMHM1002N3-R0.5AX	10.0	75.0	22.0	32.0	0.5
XMHM1202N3-R0.2AX	12.0	85.0	26.0	38.0	0.2
XMHM1202N3-R0.5AX	12.0	85.0	26.0	38.0	0.5
XMHM1602N3-R0.5AX	16.0	100.0	34.0	50.0	0.5

XMH Series Recommended Cutting Data - Profile Milling - **Metric**

Workpiece Material Group	ISO	Coolant			RWOC (Ae)			End Mill Diameter (mm)				
								6	8	10	12	16
					2%	3%	5%	← Multiply fz by this factor based on ae. When finishing, use the standard fz per chart below. Only add chip thinning when roughing or semi-finishing.				
					3.57	2.93	2.3					
		Emulsion	Air	MQL	Vc - M/Min			fz - mm/tooth				
Hardened Steels 45-50 HRC	H	○	•	○	250	230	150	0.018	0.024	0.030	0.036	0.048
Hardened Steels 50-55 HRC		x	•	○	230	200	120	0.016	0.022	0.027	0.032	0.043
Hardened Steels 55-60 HRC		x	•	○	180	150	80	0.012	0.016	0.020	0.024	0.032
Hardened Steels 60-65 HRC		x	•	○	150	120	60	0.012	0.016	0.020	0.024	0.032

• Preferred ○ Possible x Not Possible

Notes:

- Techincal data provided should be considered advisory only as variations may be necessary depending on the particular application.
- For extended tool life, or if chatter occurs, start by reducing the speed and feed by 20-30% simultaneously.
- Recommended guidelines for flat face machinining:
  - Reduce cutting speed by 30-50% and feed at fz listed above in chart
  - Ae (RWOC) = 30-50% of the tool diameter, depending on tool stability and machine rigidity
  - For hardened steels ≤ 55 HRC, Ap (ADOC) = ≤ 2% of the tool diameter
  - For hardened steels > 55 HRC, Ap (ADOC) = ≤ 1% of the tool diameter
  - For finishing operations, Ap (ADOC) = 0.5% of the tool diameter

M.A. FORD
High Performance Cutting Tools

*Where **high performance** is the **standard**®*

M.A. FORD High Performance Cutting Tools
APG ADVANCED PRODUCT GROUP
M.A. FORDMAX RANGE

TuffCut® Endmills

cyclone Drills

TrueSize® Reamers

Twister® Drills

Chamfer & Profile Mills

Diamond Grind Routers

Edgehog® Burrs

Countersinks

M.A. Ford Europe Ltd.
650 City Gate
London Road, Derby
DE24 8WY
United Kingdom

Tel: +44(0) 1332 267960
Fax: +44(0) 1332 267969
Email: sales@mafordeurope.com
www.mafordeurope.com

M.A. Ford® Mfg. Co., Inc.
7737 Northwest Blvd.
Davenport,
IA 52806
USA

Tel: 563-391-6220 or 800-553-8024
Fax: 563-386-7660 or 800-892-9522
Email: sales@maford.com
www.maford.com

M.A. Ford® Asia-Pacific Limited
Room 1709, Level 17
Millennium City 2
378 Kwun Tong Road
Kowloon, Hong Kong

Tel: +852-2167-7150
Fax: +852-2167-8150
Email: sales@mafordap.com

CAT-XMH-01