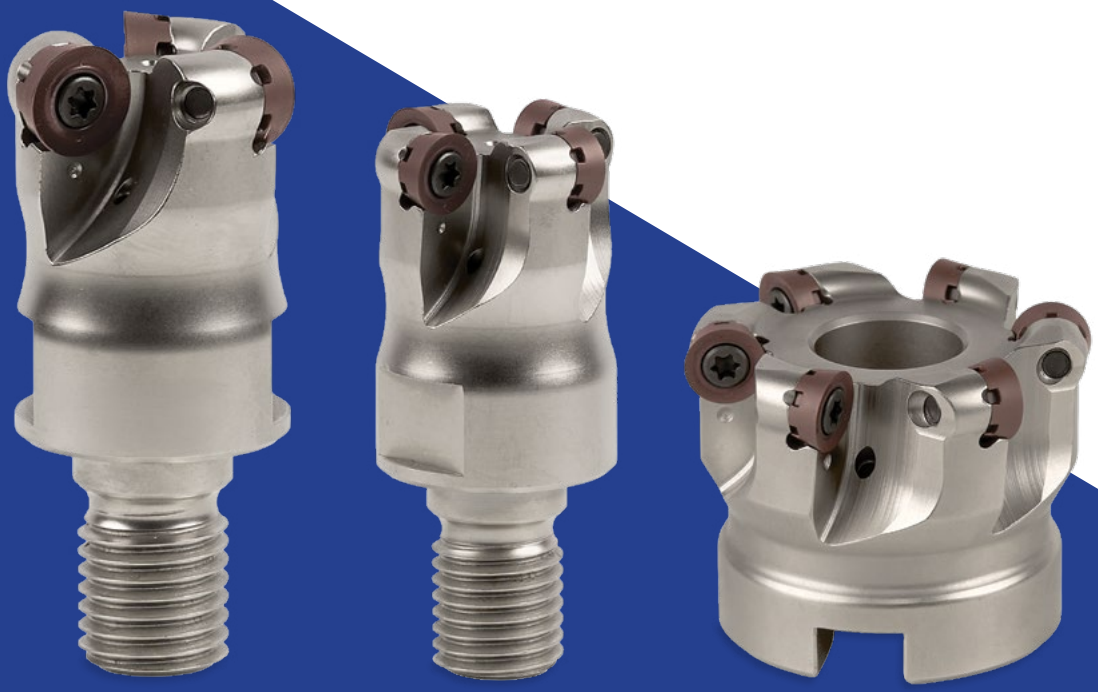
M.A. FORD
High Performance Cutting Tools

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

M.A. FORDMAX RANGE

Series MRO-RP

Round Insert Radius Mill
Difficult-to-Machine Materials



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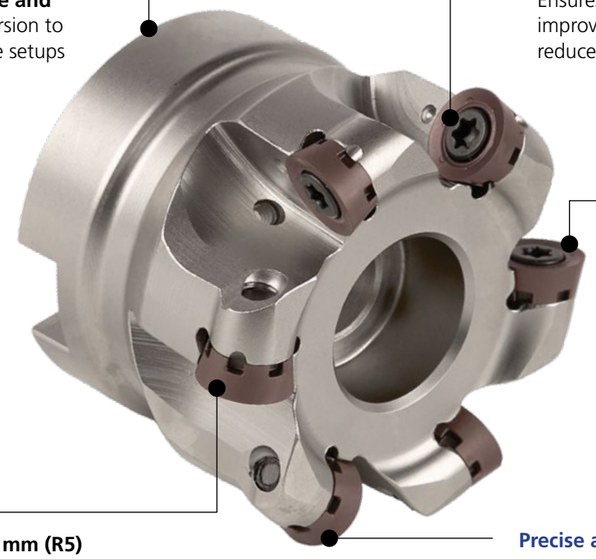
Where **high performance** is the **standard**

Shaping the **future** of **manufacturing**

M.A. FORDMAX RANGE Series MRO-RP

Mounting Options

Available in both **bore and screw-in** modular version to suit different machine setups and applications.



M4 Clamping Screw

Ensures reliable performance with improved **torque transfer** and reduced risk of breakage.

Multiple Cutting Edges

Offers **three or six** effective cutting edges depending on depth of cut, maximising tool life and cost efficiency.

Diameter Range

Available from **20-63 mm (R5)** and **25-100mm (R6)** covering a wide variety of machinery and dimensional requirements.

Precise and Secure Insert Positioning

The **anti-rotation system** locks the insert firmly in place, ensuring stability, reliable indexing and consistent cutting accuracy across applications.

The MRO-RP radius mill features a stable and easy-to-use cutter design with optimised round insert geometry engineered for stainless steels and difficult-to-machine materials. The insert geometry delivers smooth cutting action, while the anti-rotational location system ensures secure insert positioning and reliable performance in demanding applications.

FM130PM and FS130PM grades designed for stainless steels and HRSA materials, with supplementary grades available for steels and cast irons.

Applications

Ideal for face milling and profiling, primarily for roughing operations, with the flexibility to be used in finishing and other milling applications when required.

Suitable Materials

P K S M

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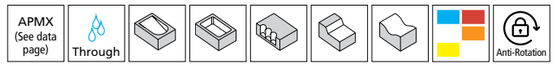
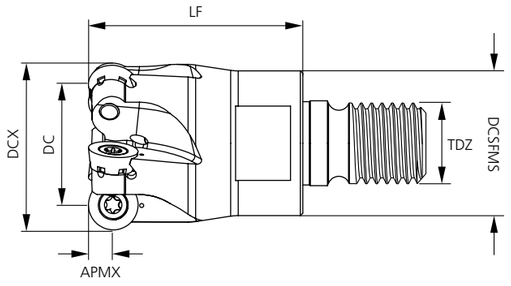
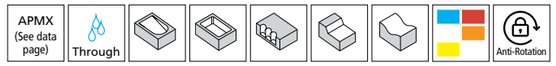
MROM-RP10 Screw-On Cutter Bodies

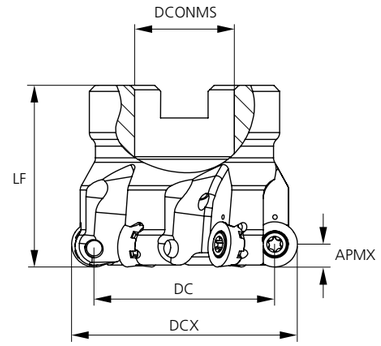




EDP	Tool Number	Dimensions (mm)							Insert
		DC	DCX	DCSFMS	TDZ	LF	ZEFP	CSP	
FH2956	MROM-2002-RP10-M10	10	20	18	M10	30	2	Y	RPMT/ RPGT10T3
FH2969	MROM-2503-RP10-M12	15	25	21	M12	35	3	Y	
FH2970	MROM-3204-RP10-M16	22	32	29	M16	43	4	Y	
FH2971	MROM-3505-RP10-M16	25	35	29	M16	43	5	Y	

MROB-RP10 Bore Type Cutter Bodies





EDP	Tool Number	Dimensions (mm)						Insert
		DC	DCX	DCONMS	LF	ZEFP	CSP	
FH2972	MROB-5006-RP10-22	40	50	22	40	6	Y	RPMT/ RPGT10T3
FH2973	MROB-5207-RP10-22	42	52	22	40	7	Y	
FH2974	MROB-6307-RP10-22	53	63	22	40	7	Y	

Inserts

Insert Number	Grades			
	FM140CM	FM130PM	FS130PM	FK125CM
	EDP			
RPMT10T3-6MS	FW7252	FW7234	FW7235	FW7251
RPGT10T3-6MS	-	FW7248	FW7249	-

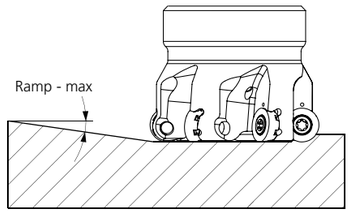
Spare Parts

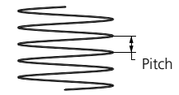
	Insert Screw		Torx Driver		Torx T-Handle		Torque Driver		Torque Blade	
Insert	Nm	EDP	Part Number	EDP	Part Number	EDP	Part Number	EDP	Part Number	EDP	Part Number
RPMT/ RPGT10T3	T15	3.0	FS1214	MS40100TATX	FS1077	SD110-T15	FS1088	TH120-T15	FS1108	TD140-3.0NM	FS1119	TB160-T15

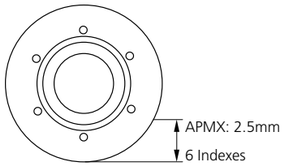
Ramping Data

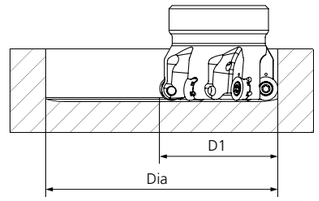
Tool D1	Ramp-max	Helical Ramp-max	Dia-min	Dia-max
20	1.3°	1.3°	26	30
25	2°	1.8°	37	40
32	3°	1.5°	50	54
35	3.1°	1.2°	54	59
40	3.3°	1.1°	64	70
52	2.2°	0.9°	88	94
63	1.6°	0.5°	105	112

Note:
For safe operation, a ramp angle of 1–1.5° is recommended.
For helical ramping, a depth per pass of 1–2 mm is recommended.

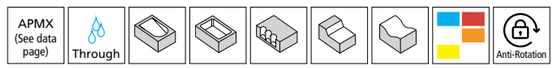


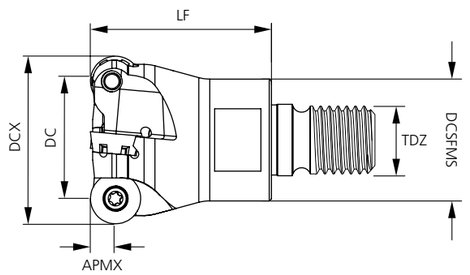






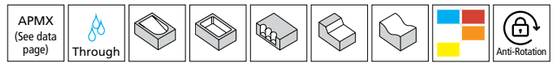
MROM-RP12 Screw-On Cutter Bodies

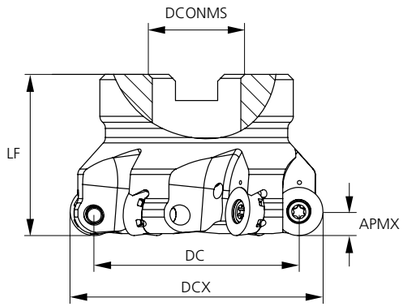




EDP	Tool Number	Dimensions (mm)							Insert
		DC	DCX	DCSFMS	TDZ	LF	ZEFP	CSP	
FH2957	MROM-2502-RP12-M12	13	25	21	M12	35	2	Y	RPMT/ RPGT1204
FH2958	MROM-3203-RP12-M16	20	32	29	M16	43	3	Y	
FH2959	MROM-4004-RP12-M16	28	40	29	M16	43	4	Y	

MROB-RP12 Bore Type Cutter Bodies





EDP	Tool Number	Dimensions (mm)						Insert
		DC	DCX	DCONMS	LF	ZEFP	CSP	
FH2951	MROB-4004-RP12-16	28	40	16	40	4	Y	RPMT/ RPGT1204
FH2950	MROB-5005-RP12-22	38	50	22	40	5	Y	
FH2946	MROB-5205-RP12-22	40	52	22	40	5	Y	
FH2952	MROB-6306-RP12-22	51	63	22	40	6	Y	
FH2953	MROB-6607-RP12-22	54	66	22	40	7	Y	
FH2954	MROB-8007-RP12-27	68	80	27	52	7	Y	
FH2955	MROB-10008-RP12-32	88	100	32	52	8	Y	

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Inserts

Insert Number	Grades			
	FM140CM	FM130PM	FS130PM	FK125CM
	EDP			
RPMT1204-6MS	FW7253	FW7223	FW7224	FW7254
RPMT1204-6MH	-	FW7230	FW7231	-
RPGT1204-6MS	-	FW7232	FW2733	-

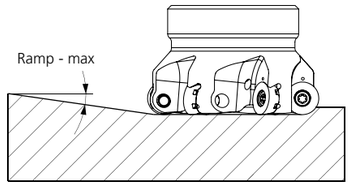
Spare Parts

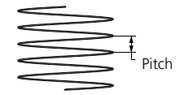
	Insert Screw		Torx Driver		Torx T-Handle		Torque Driver		Torque Blade	
Insert	Nm	EDP	Part Number	EDP	Part Number	EDP	Part Number	EDP	Part Number	EDP	Part Number
RPMT/ RPGT1204	T15	3.0	FS1214	MS40100TATX	FS1077	SD110-T15	FS1088	TH120-T15	FS1108	TD140-3.0NM	FS1119	TB160-T15

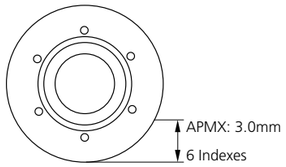
Ramping Data

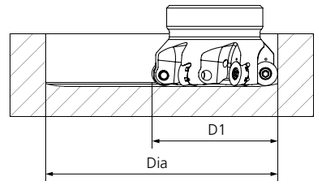
Tool D1	Ramp-max	Helical Ramp-max	Dia-min	Dia-max
25	6°	2.2°	31	38
32	4°	1.7°	46	52
40	2.8°	1.4°	62	68
50	2.6°	1.1°	81	88
52	2.3°	1°	86	92
63	1.9°	0.9°	107	114
66	1.6°	0.8°	113	120
80	1.3°	0.7°	142	148
100	1.0°	0.5°	181	188

Note:
For safe operation, a ramp angle of 1–1.5° is recommended.
For helical ramping, a depth per pass of 1–2 mm is recommended.









Series **MRO-RP**

Recommended Speeds by Material Group

Workpiece Material Group		Material Type	Coolant			Vc-m/min		
			Max	Air	MMS	Low	Mid	High
Steels	**P**	Low Carbon Steels ≤180HB	●	●	●	200	**250**	300
		Med Carbon / Alloy Steels 180-350HB	●	●	●	170	**200**	250
		Pre-Hardened Steels 35-45HRC	●	●	●	120	**150**	180
Stainless Steels	**M**	Free Machining Stainless	●	●	○	130	**180**	200
		Austenitic Stainless	●	●	○	120	**150**	160
		Difficult Stainless	●	○	○	100	**120**	140
Special Alloys	**S**	High Temp Alloys	●	X	X	20	**30**	40
		Titanium Alloys	●	X	X	90	**100**	120
Cast Irons	**K**	Grey Cast Iron	●	○	○	150	**180**	220
		Ductile Cast Iron	●	○	○	100	**120**	180

Recommended Feed per Tooth by Material Group

Workpiece Material Group		Material Type	Geometry					
			MS			MH		
			fz-mm/tooth					
Steels	**P**	Low Carbon Steels ≤180HB	0.10	**0.25**	0.40	0.15	**0.30**	0.50
		Med Carbon / Alloy Steels 180-350HB	0.10	**0.25**	0.40	0.15	**0.30**	0.50
		Pre-Hardened Steels 35-45HRC	0.10	**0.15**	0.20	0.10	**0.20**	0.25
Stainless Steels	**M**	Free Machining Stainless	0.10	**0.15**	0.20	0.10	**0.20**	0.25
		Austenitic Stainless	0.10	**0.15**	0.20	0.10	**0.20**	0.25
		Difficult Stainless	0.10	**0.15**	0.20	0.10	**0.20**	0.25
Special Alloys	**S**	High Temp Alloys	0.05	**0.10**	0.15	0.05	**0.10**	0.15
		Titanium Alloys	0.05	**0.10**	0.15	0.05	**0.10**	0.15
Cast Irons	**K**	Grey Cast Iron	-	**-**	-	0.15	**0.30**	0.50
		Ductile Cast Iron	-	**-**	-	0.10	**0.20**	0.25

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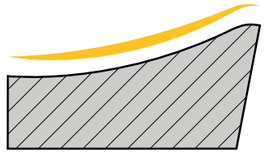
Grade Chart

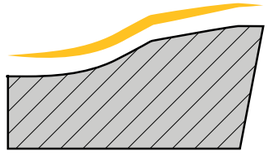
Workpiece Material Group	Range	Coated	
		CVD	PVD
P Steels	10–40	FM140C	
M Stainless Steels	10–40	FM140C	FM130P
S Special Alloys	10–40	FM130P	FS130P
K Cast Irons	10–30	FK125CM	

Geometry

High Sharpness ◄——► **High Edge Strength**

Smoother Cutting — Stronger Edge





MS – Medium Sharp

First choice geometry for lower cutting forces

Smooth cutting action in stainless steels and difficult-to-machine materials.

MH – Medium Heavy

Applications requiring high edge strength

Suitable for higher feed rates and heavier milling conditions.

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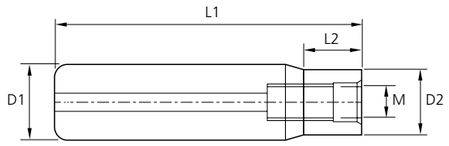
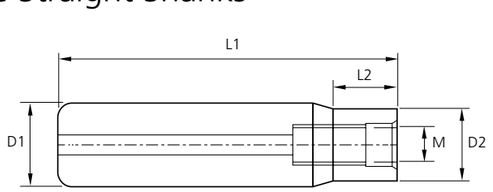
MSS & MCS Steel Straight Shanks



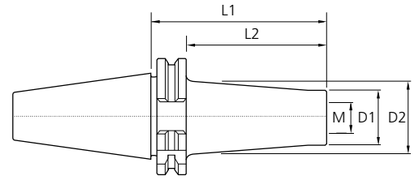
EDP	Part Number	D1	D2	L1	L2	M
FC1217	MSS-D16-M8-90-20T	16	14.5	90	20	M8
FC1218	MSS-D16-M8-150-30T	16	14.5	150	30	M8
FC1210	MSS-D20-M10-150-40T	20	17.7	150	40	M10
FC1212	MSS-D25-M12-150-40T	25	20.7	150	40	M12
FC1213	MSS-D32-M16-170-40T	32	28.7	170	40	M16

MCS Screw-On Tool Holders Carbide Straight Shanks



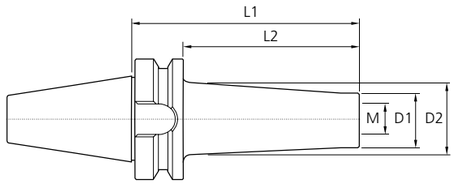
EDP	Part Number	D1	D2	L1	L2	M
FC1001	MCS-D16-M8-100-30	16	15.5	100	30	M8
FC1002	MCS-D16-M8-150-50	16	15.5	150	50	M8
FC1013	MCS-D16-M8-150-95	16	15.5	150	95	M8
FC1003	MCS-D16-M8-200-100	16	15.5	200	100	M8
FC1305	MCS-D20-M10-100-50	20	19	100	50	M10
FC1306	MCS-D20-M10-150-100	20	19	150	100	M10
FC1004	MCS-D20-M10-200-50	20	18.5	200	50	M10
FC1005	MCS-D20-M10-250-100	20	18.5	250	100	M10
FC1006	MCS-D20-M10-300-150	20	18.5	300	150	M10
FC1007	MCS-D25-M12-200-50	25	23	200	50	M12
FC1008	MCS-D25-M12-250-100	25	23	250	100	M12
FC1009	MCS-D25-M12-300-150	25	23	300	150	M12
FC1010	MCS-D32-M16-250-100	32	28	250	100	M16
FC1011	MCS-D32-M16-300-150	32	28	300	150	M16
FC1012	MCS-D32-M16-350-200	32	28	350	200	M16

SOM Screw-On Tool Holders SK (DIN 69871) Taper Adapters



EDP	Part Number	SK	D1	D2	L1	L2	M
FA11642	SK40-MCA08-050ADB	40	14.5	23	69.1	50	M8
FA11643	SK40-MCA08-075ADB	40	14.5	23	94.1	75	M8
FA11644	SK40-MCA08-100ADB	40	14.5	25	119.1	100	M8
FA11646	SK40-MCA10-050ADB	40	18	23	69.1	50	M10
FA11647	SK40-MCA10-075ADB	40	18	28	94.1	75	M10
FA11648	SK40-MCA10-100ADB	40	18	32	119.1	100	M10
FA11650	SK40-MCA12-050ADB	40	21	24	69.1	50	M12
FA11651	SK40-MCA12-075ADB	40	21	31	94.1	75	M12
FA11652	SK40-MCA12-100ADB	40	21	33	119.1	100	M12
FA11653	SK40-MCA12-125ADB	40	21	36	144.1	125	M12
FA11655	SK40-MCA16-050ADB	40	29	34	69.1	50	M16
FA11656	SK40-MCA16-075ADB	40	29	34	94.1	75	M16
FA11657	SK40-MCA16-100ADB	40	29	36	119.1	100	M16
FA11658	SK40-MCA16-125ADB	40	29	40	144.1	125	M16
FA11659	SK40-MCA16-150ADB	40	29	42.5	169.1	150	M16
FA11666	SK50-MCA12-050ADB	50	21	24	69.1	50	M12
FA11667	SK50-MCA12-100ADB	50	21	33	119.1	100	M12
FA11668	SK50-MCA12-150ADB	50	21	40	169.1	150	M12
FA11669	SK50-MCA16-050ADB	50	29	34	69.1	50	M16
FA11670	SK50-MCA16-100ADB	50	29	36	119.1	100	M16
FA11671	SK50-MCA16-150ADB	50	29	42.5	169.1	150	M16

SOM Screw-On Tool Holders BT (MAS 403) Taper Adapters

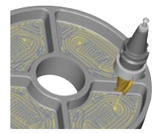


EDP	Part Number	ISO	D1	D2	L1	L2	M
FA10374	BT40-MCA08-050ADB	40	14.5	23	77	50	M8
FA10375	BT40-MCA08-075ADB	40	14.5	23	102	75	M8
FA10376	BT40-MCA08-100ADB	40	14.5	25	127	100	M8
FA10378	BT40-MCA10-050ADB	40	18	23	77	50	M10
FA10379	BT40-MCA10-075ADB	40	18	28	102	75	M10
FA10380	BT40-MCA10-100ADB	40	18	32	127	100	M10
FA10382	BT40-MCA12-050ADB	40	21	24	77	50	M12
FA10383	BT40-MCA12-075ADB	40	21	31	102	75	M12
FA10384	BT40-MCA12-100ADB	40	21	33	127	100	M12
FA10385	BT40-MCA12-125ADB	40	21	36	154	125	M12
FA10387	BT40-MCA16-050ADB	40	29	34	77	50	M16
FA10388	BT40-MCA16-075ADB	40	29	34	102	75	M16
FA10389	BT40-MCA16-100ADB	40	29	36	127	100	M16
FA10390	BT40-MCA16-125ADB	40	29	40	154	125	M16
FA10391	BT40-MCA16-150ADB	40	29	42.5	177	150	M16
FA10398	BT50-MCA12-050ADB	50	21	24	88	50	M12
FA10399	BT50-MCA12-100ADB	50	21	33	138	100	M12
FA10400	BT50-MCA12-150ADB	50	21	40	188	150	M12
FA10401	BT50-MCA16-050ADB	50	29	34	88	50	M16
FA10402	BT50-MCA16-100ADB	50	29	36	138	100	M16
FA10403	BT50-MCA16-150ADB	50	29	42.5	188	150	M16

Integrated Manufacturing Solutions

M.A.Ford® World Class Cutting Tools

REGO-FIX® powRgrip® Precision Toolholding



HSM Tool Path Optimisation

REGO-FIX toolVibe® Monitoring and Optimisation

TMS Tool Management System

Technical Support & Advice

Take control of your machining processes with IMS

Integrated Manufacturing Solutions, IMS for short, combines a range of complementary technologies from M.A. Ford, including our high-performance tooling, which combine to help optimise machining and enhance productivity.

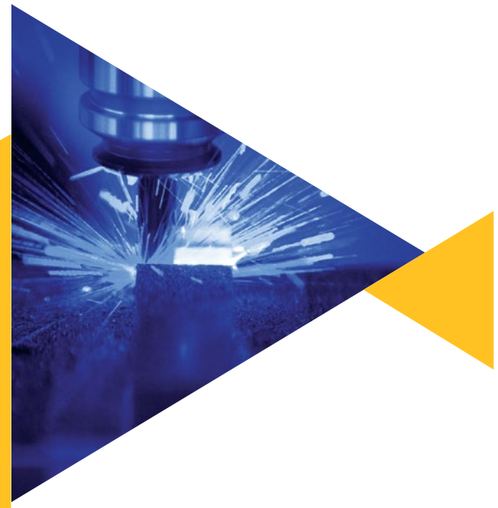
Recently extended with the addition of Spike® TDS tool force mapping and TMS automated tool management, IMS also incorporates HSM tool path optimisation software and REGO-FIX® precision tool holding, as well as our extensive cutting tool range and unrivalled technical support.

IMS – Providing solutions for manufacturing challenges.

For further information please contact our support team on: 01332 267960

M.A. FORDMAX RANGE

The M.A. Ford interactive cutting data app
- Everything you need at your fingertips



Our interactive app for iOS and Android devices makes tool cutting data calculations simpler and faster by minimising text input and using 3D graphics that respond instantly to changing cutting parameters, using smart-phone or tablet touch screens.

Developed around our proven cutting data, the app supports a wide range of ISO materials including steel, aluminium alloys, stainless steel and titanium, as well as cast iron, hardened steels and exotic alloys.

Once basic information has been selected from ‘drop down’ menus, such as tool type, diameter and material, the app allows you to ‘drag’ the tool graphic display to change the radial engagement and depth of cut, which instantly calculates speeds and feeds.

Radial chip thinning data is also calculated for use with high-speed machining (HSM) strategies, which can significantly reduce cycle times and improve tool life.

Colour coded feedback guides you toward the recommended cutting conditions based on the chosen input parameters. User over-ride controls allow cutting data to be fine-tuned for individual applications, as well as enabling calculations to be made that compare multiple scenarios instantly.

Proven cutting data can be stored via the ‘Save’ feature for future reference or shared with other app users. A hyperlink to M.A. Ford Europe’s website also allows immediate access to online information and downloads.

Get it on Google Play

Download on the App Store

For further information please contact our support team on: 01332 267960

M.A. FORD
High Performance Cutting Tools

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

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