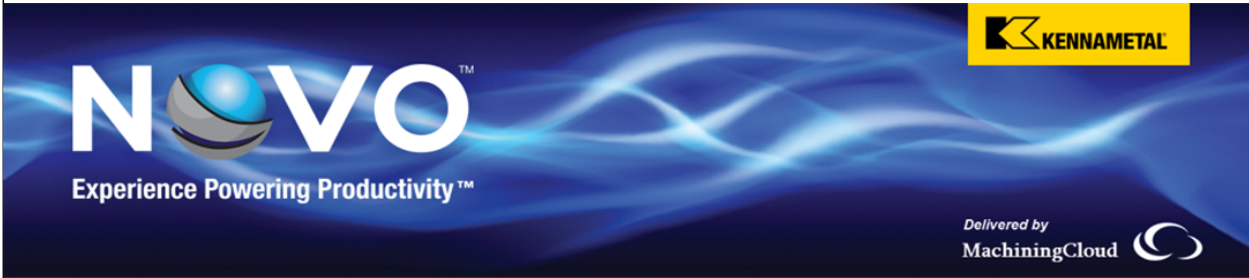


Masteel - Face Grooving



Author :
Ron Hansen


Date : 12/20/2023 3:30:12 PM

Material :
M2 - AISI - 304

Notes :

Machine :
No Machine

Tool List

Brand	Tool Name	Catalog Number	Grade	Order Number	Customer Part #	Description
 KENNAMETAL	Tool 1 - 4.0mm Wide Face Groove Holder (2.362 To 2.953")	KGME2525M50		1600271		Modular Toolholder Size 50
 KENNAMETAL	Tool 1 - 4.0mm Wide Face Groove Holder (2.362 To 2.953")	EVM50R0416A060075C		6079482		Evolution Modular Blade
 KENNAMETAL	Tool 1 - 4.0mm Wide Face Groove Holder (2.362 To 2.953")	EC040M04N00CF02	KCM35B	6017935		Evolution Cut-Off Insert
 KENNAMETAL	Tool 2 - 4.0mm Wide Face Groove Blade For ID Taper (1.969 To 2.362")	KGME2525M50		1600271		Modular Toolholder Size 50
 KENNAMETAL	Tool 2 - 4.0mm Wide Face Groove Blade For ID Taper (1.969 To 2.362")	EVM50R0416A050060C		6079481		Evolution Modular Blade
 KENNAMETAL	Tool 2 - 4.0mm Wide Face Groove Blade For ID Taper (1.969 To 2.362")	EC040M04N00CF02	KCM35B	6017935		Evolution Cut-Off Insert

*: Additional Item

Tool 1 - 4.0mm Wide Face Groove Holder (2.362 To 2.953")



Item List

Image	Catalog Number	Grade	Order Number	Customer Part #	Description
	KGME2525M50		1600271		Modular Toolholder Size 50
	MS1162		1127019		INSERT SCR M6-1.0 x 18 T25
	MS2002		1621087		BTN HD CAP SCR M6-1.0 x 45
	KT25		1022725		WRENCH TORX TX25
	EVM50R0416A060075C		6079482		Evolution Modular Blade
	EC040M04N00CF02	KCM35B	6017935		Evolution Cut-Off Insert

Assembly Details

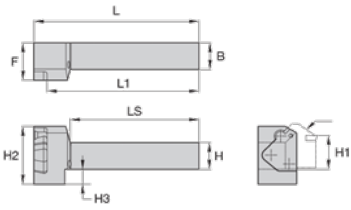
Property	Short Name	Value	Recommended Range	Unit
Functional Length	LF	5.4823		in
Tool Protrusion Length	LPR	5.9154		in
Tool Assembly Length	LTA	5.876		in
Tool Assembly Height	HTA	0.9798		in
Tool Assembly Width	WTA	1.8404		in
Overall Length	OAL	5.9154		in

Applications



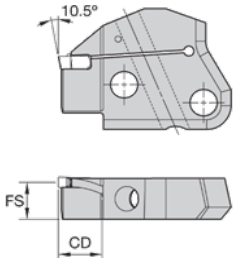
Product Details

Modular Toolholder Size 50



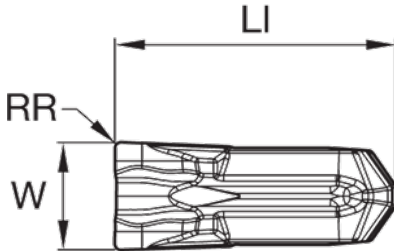
Property	Value	Unit
Order Number	1600271	
Catalog Number	KGME2525M50	
B	0.9843	in
H	0.9843	in
L1	5.482	in
F	0.147	in
LS	4.9311	in
H3	0.2693	in
L	5.915	in
blade size	50	
Torx	T25	
Torx 1	T25	

Evolution Modular Blade



Property	Value	Unit
Order Number	6079482	
Catalog Number	EVM50R0416A060075C	
SSC	4	
D min	2.362	in
D max	2.953	in
CD	0.63	in
FS	0.394	in
BSC	50	

Evolution Cut-Off Insert



Property	Value	Unit
Order Number	6017935	
Catalog Number	EC040M04N00CF02	
Grade	KCM35B	
SSC	4	
W	0.1575	in

LI	0.401	in
RR	0.008	in
RL	0.008	in

Performance

Property	Short Name	Value	Recommended Range	Unit
Material		M2		
Workpiece Diameter	(D)	3		in
Spindle Speed	(n)	337		rev/min
Cutting Speed	(Vc)	265	223.097 - 305.118	ft/min
Depth of Cut	(ap)	0.158		in
Power at Tool	(Pcut)	2.2049		hp
Torque at Tool	(Tcut)	34.36316		ft-lb
Power at Motor	(Pm)	2.94		Hp
Torque at Motor	(Tm)	45.818		ft-lb
Plunge Feed	(fnx)	0.004	0.00197 - 0.00591	in/rev



These calculations are based upon theoretical values and are intended for planning purposes only. Actual results may vary materially. Neither Kennametal nor MachiningCloud, Inc. guarantees the accuracy or the completeness of the calculations, the results and/or any data or rules included therein and Kennametal and MachiningCloud, Inc. shall have no liability for any errors, omissions or interruptions therein. Kennametal and MachiningCloud, Inc. make no warranty, express or implied, as to results to be obtained by any person or entity from the use of NOVO, its MachiningCloud Application or Kennametal's data or rules included therein. The MachiningCloud Application is a product of MachiningCloud, Inc. and Kennametal has no responsibility or liability.

Tool 2 - 4.0mm Wide Face Groove Blade For ID Taper (1.969 To 2.362")



Item List

Image	Catalog Number	Grade	Order Number	Customer Part #	Description
	KGME2525M50		1600271		Modular Toolholder Size 50
	MS1162		1127019		INSERT SCR M6-1.0 x 18 T25
	MS2002		1621087		BTN HD CAP SCR M6-1.0 x 45
	KT25		1022725		WRENCH TORX TX25
	EVM50R0416A050060C		6079481		Evolution Modular Blade
	EC040M04N00CF02	KCM35B	6017935		Evolution Cut-Off Insert

Assembly Details

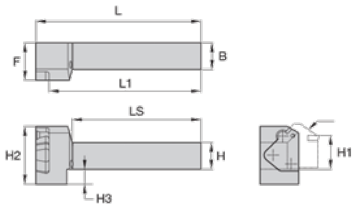
Property	Short Name	Value	Recommended Range	Unit
Functional Length	LF	5.4823		in
Tool Protrusion Length	LPR	5.9154		in
Tool Assembly Length	LTA	5.876		in
Tool Assembly Height	HTA	0.9787		in
Tool Assembly Width	WTA	1.8404		in
Overall Length	OAL	5.9154		in

Applications



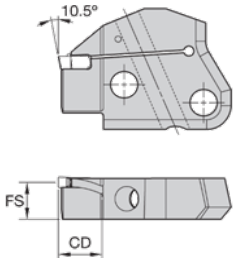
Product Details

Modular Toolholder Size 50



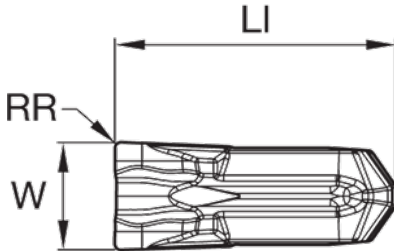
Property	Value	Unit
Order Number	1600271	
Catalog Number	KGMEI2525M50	
B	0.9843	in
H	0.9843	in
L1	5.482	in
F	0.147	in
LS	4.9311	in
H3	0.2693	in
L	5.915	in
blade size	50	
Torx	T25	
Torx 1	T25	

Evolution Modular Blade



Property	Value	Unit
Order Number	6079481	
Catalog Number	EVM50R0416A050060C	
SSC	4	
D min	1.969	in
D max	2.362	in
CD	0.63	in
FS	0.394	in
BSC	50	

Evolution Cut-Off Insert



Property	Value	Unit
Order Number	6017935	
Catalog Number	EC040M04N00CF02	
Grade	KCM35B	
SSC	4	
W	0.1575	in

LI	0.401	in
RR	0.008	in
RL	0.008	in

Performance

Property	Short Name	Value	Recommended Range	Unit
Material		M2		
Workpiece Diameter	(D)	3		in
Spindle Speed	(n)	337		rev/min
Cutting Speed	(Vc)	265	223.097 - 305.118	ft/min
Depth of Cut	(ap)	0.158		in
Power at Tool	(Pcut)	2.2049		hp
Torque at Tool	(Tcut)	34.36316		ft-lb
Power at Motor	(Pm)	2.94		Hp
Torque at Motor	(Tm)	45.818		ft-lb
Plunge Feed	(fnx)	0.004	0.00197 - 0.00591	in/rev



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