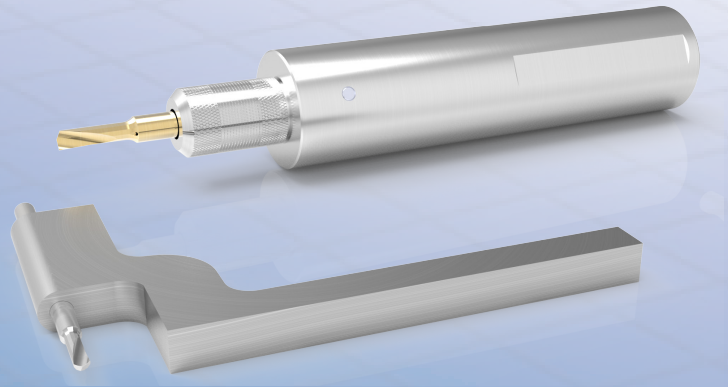
Speeds And Feeds Multidec Micro Bore

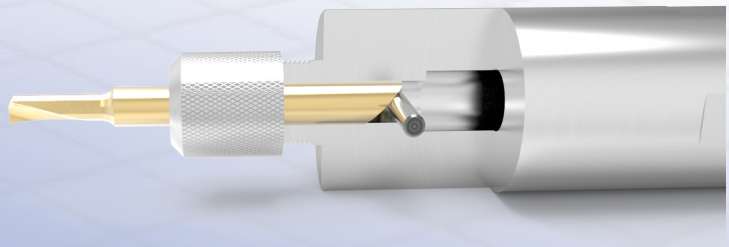
GenSwiss
Advancing Small Parts Manufacturing

MICRO BORE	Steel Unalloyed			Steel Low Alloyed			Steel High Alloyed		
Hardness (HB)-(HRC)	125-300 HB			180-250 HB			200-350 HB		
Category	I			II			III		
Machining Method	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing
Cutting speeds	vc(ft/min)								
Carbide grade									
UHM 20	-	-	70-390	-	-	70-330	-	-	70-300
UHM 20 HX	-	-	100-520	-	-	100-460	-	-	100-430
UHM 20 TX+	-	-	-	-	-	-	-	-	100-330

MICRO BORE	Stainless Steel			Stainless Steel			Titanium		
Hardness (HB)-(HRC)	180-220 HB			220-330 HB			-		
Category	V			VI			IV		
Machining Method	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing
Cutting Speeds	vc(ft/min)								
Carbide Grade									
UHM 20	-	-	70-260	-	-	70-200	-	-	70-230
UHM 20 HX	-	-	100-390	-	-	100-330	-	-	100-330
UHM 20 TX+	-	-	100-330	-	-	100-260	-	-	100-260

MICRO BORE	Aluminum			Brass			Hard Materials		
Hardness (HB)-(HRC)	60-130 HB			-			45-70 HRC		
Category	VII			VIII			X		
Machining Method	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing
Cutting Speeds	vc(ft/min)								
Carbide Grade									
UHM 20	-	-	160-720	-	-	100-360	-	-	-
UHM 20 HX	-	-	200-1150	-	-	160-590	-	-	-
UHM 20 TX+	-	-	-	-	-	-	-	-	50-130





Micro Bore Feed & Depth Of Cut

GenSwiss
Advancing Small Parts Manufacturing

SDG - SXG - SDH - SDI - SXI - SDY - SDZ

	Steel Unalloyed		Steel Low Alloyed		Steel High Alloyed		Stainless Steel		Titanium		Aluminum/ Brass		Hard Materials	
D(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)
≤1	.0004-.0008	.004-.008	.0004-.0007	.004-.007	.0003-.0007	.003-.007	.0003-.0007	.003-.007	.0003-.0005	.003-.005	.0004-.001	.004-.010	0002-.0008	.002-.008
2	.0005-.0009	.005-.009	.0005-.0008	.005-.008	.0003-.0007	.003-.007	.0003-.0007	.003-.007	.0003-.0008	.003-.008	0006-.0011	.006-.011	.0003-.0008	.003-.008
3	.0006-.001	.006-.010	.0006-.0009	.006-.009	.0003-.0007	.003-.007	.0003-.0007	.003-.007	.0004-.0008	.004-.008	.0006-.0014	.006-.014	.0004-.0008	.004-.008
4	.0006-.0011	.006-.011	.0006-.001	.006-.010	.0004-.0008	.004-.008	.0004-.0008	.004-.008	.0004-.0008	.004-.008	.0006-.0014	.006-.014	.0004-.0008	.004-.008
6	.0006-.0012	.006-.012	.0006-.001	.006-.010	.0004-.0008	.004-.008	.0004-.0008	.004-.008	.0004-.001	.004-.010	.0006-.0016	.006-.016	.0004-.001	.004-.010
8	.0006-.0012	.006-.012	.0006-.001	.006-.010	.0004-.0008	.004-.008	.0004-.0008	.004-.008	.0004-.001	.004-.010	.0006-.002	.006-.020	.0004-.001	.004-.010

SDK - SDM - SDO - SDQ - SDW - SDT - SXJ - SXP

	Steel Unalloyed		Steel Low Alloyed		Steel High Alloyed		Stainless Steel		Titanium		Aluminum/ Brass		Hard Materials	
D(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)
≤1	0004-.0008	.004-.008	.0004-.0007	.004-.007	.0003-.0006	.003-.006	.0003-.0006	.003-.006	.0002-.0005	.002-.005	.0003-.0005	.003-.005	.0002-.0005	.002-.005
2	.0004-.0009	.004-.009	0004-.0008	.004-.008	.0003-.0007	.003-.007	.0003-.0007	.003-.007	.0003-.0006	.003-.006	.0004-.0006	.004-.006	.0003-.0006	.003-.006
3	.0004-.001	.004-.010	.0004-.0009	.004-.009	.0004-.0008	.004-.008	.0004-.0008	.004-.008	.0003-.0007	.003-.007	.0004-.0008	.004-.008	.0003-.0007	.003-.007
4	.0004-.001	.004-.010	.0004-.001	.004-.010	.0004-.0009	.004-.009	.0004-.0009	.004-.009	.0003-.0008	.003-.008	.0004-.001	.004-.010	.0003-.0008	.003-.008
6	.0004-.001	.004-.010	.0004-.001	.004-.010	.0004-.001	.004-.010	.0004-.001	.004-.010	.0003-.0008	.003-.008	.0004-.0012	.004-.012	.0003-.0008	.003-.008
8	.0004-.001	.004-.010	.0004-.001	.004-.010	.0004-.001	.004-.010	.0004-.001	.004-.010	.0003-.0008	.003-.008	.0004-.0014	.004-.014	.0003-.0008	.003-.008

SDR - SDS

Steel Unalloyed	Steel Low Alloyed	Steel High Alloyed	Stainless Steel	Titanium	Aluminum/ Brass	Hard Materials
f(ipm)	f(ipm)	f(ipm)	f(ipm)	f(ipm)	f(ipm)	f(ipm)
.0003-.0008	.0002-.0006	.0002-.0006	.0002-.0006	.0002-.0006	.0003-.0008	.0002-.0006

Number Of Passes

Pitch	(mm)	.06-.09	0.1-0.35	0.4	0.45	0.5	0.75	0.8	1	1.25	1.5	1.75	2.25
	(tpi)	-	80/72	64	56	48/44	40/36	32	28/24	20/19	18/16	14	13/11
Steel		2-4	3-5	5-6	3-7	5-8	5-9	6-9	6-10	7-11	8-12	9-13	12-15
Stainless Steel		2-4	4-6	5-6	5-7	6-9	6-10	6-11	7-12	8-13	9-14	12-15	13-18
Titanium		2-5	4-7	5-6	5-7	6-9	6-10	6-11	7-13	8-14	9-14	12-15	13-19
Non-Ferrous metal		2-4	3-5	3-6	3-7	3-8	4-9	5-10	6-11	7-14	8-16	9-16	11-17
Hard materials		3-6	4-7	5-8	6-9	8-10	9-12	10-15	11-17	13-20	18-22	20-26	25-30