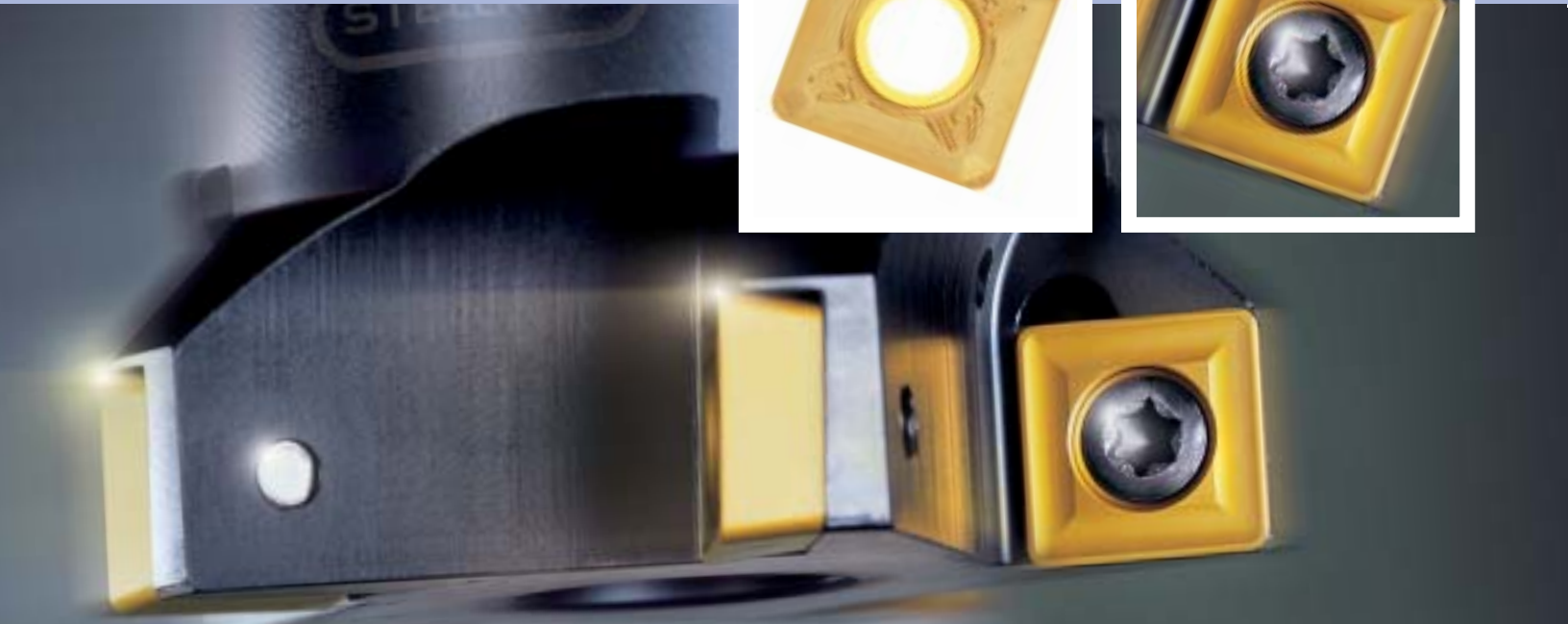


STELLRAM[®]

New! Plunge Milling 7791VS

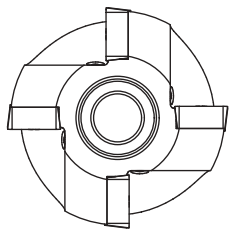
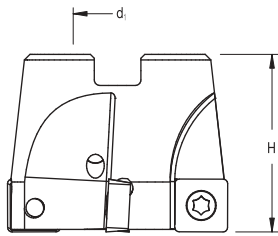


PERFORMANCE FEATURES

- Ideal tool for stepover-plunge-slotting and core plunging.
- High metal removal rate and excellent chip evacuation.
- Principally Z-axial cutting force minimises tool deflection and side forces.
- System extremely efficient in all roughing operations and deep cavities.
- Ideal for aerospace and mold making industries.
- Wide range of grades and geometries for all applications.



Stellram[®] tooling systems for
all your milling requirements.

7791VS – Shell Mill Fixation





Shell Mill Fixation

7791VS09 Shell Mill Fixation

EDP #	Part Number	Insert	Dimensions mm					Spares			
			D	d ₁	H	Z	a _e	EDP #	 EDP #	 EDP #	
029342	C7791VS09-A1.50Z04R	SC..09T3	1.500	0.500	1.260	4	0.315	015269	F3508T	015240	T15
029343	C7791VS09-A2.00Z05R	SC..09T3	2.000	0.750	1.575	5	0.315	015269	F3508T	015240	T15

7791VS12 Shell Mill Fixation

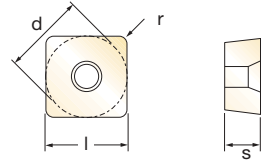
EDP #	Part Number	Insert	Dimensions mm					Spares			
			D	d ₁	H	Z	a _e	EDP #	 EDP #	 EDP #	
029344	C7791VS12-A2.50Z05R	SC..12M5	2.500	0.750	1.575	5	0.433	015270	F4011T	015241	T20
029345	C7791VS12-A3.00Z06R	SC..12M5	3.000	1.000	1.969	6	0.433	015270	F4011T	015241	T20
029346	C7791VS12-A4.00Z08R	SC..12M5	4.000	1.250	1.969	8	0.433	015270	F4011T	015241	T20
029347	C7791VS12-A5.00Z09R	SC..12M5	5.000	1.500	2.480	9	0.433	015270	F4011T	015241	T20
029348	C7791VS12-6.00Z12R	SC..12M5	6.000	1.500	2.480	12	0.433	015270	F4011T	015241	T20

7791VS Technical Advice

Milling Cutter Order Example: **C7791VS09-A1.50Z04R**
 Milling Insert Order Example: **SCMT09T308EN-41 SP6564**



Inserts for 7791VS



EDP #	Part Number	Grade	Application & Material			Dimensions (in)				
			Roughing ▼	Semi-Finishing ▼▼	Finishing ▼▼▼	d	l	s	r	h _m min
018186	SCMT09T308E	GH1	◆	◆	◆	0.375	0.375	0.156	0.031	-
017315	SCMT09T308EN-41	MP91M	◆◆			0.375	0.375	0.156	0.031	-
024107	SCMT09T308EN-41	PFZ				0.375	0.375	0.156	0.031	-
015147	SCMT09T308EN-41	X500	◆◆			0.375	0.375	0.156	0.031	-
027731	SCMT09T308EN-41	SP6564	◆◆◆			0.375	0.375	0.156	0.031	-
018192	SCMT12M508E	GH1	◆			0.500	0.500	5,00	0.031	-
017709	SCMT12M512E	GH1	◆			0.500	0.500	5,00	0.047	-
017316	SCMT12M512E	MP91M	◆◆			0.500	0.500	5,00	0.047	-
015227	SCMT12M512E	PFZ				0.500	0.500	5,00	0.047	-
017710	SCMT12M512E	SFZ	◆◆			0.500	0.500	5,00	0.047	-
024129	SCMT12M512E	X500	◆			0.500	0.500	5,00	0.047	-
017317	SCMT12M512EN-41	MP91M	◆◆			0.500	0.500	5,00	0.047	-
024108	SCMT12M512EN-41	PFZ				0.500	0.500	5,00	0.047	-
015226	SCMT12M512EN-41	X500	◆◆			0.500	0.500	5,00	0.047	-
027732	SCMT12M512EN-41	SP6564	◆◆◆			0.500	0.500	5,00	0.047	-



Recommended Cutting Conditions

Material	▼ Roughing				▼▼ Semi-finishing		▼▼▼ Finishing	
	Speed V _C (feet/min)	a _e 0.118 - 0.315 Feed SCMT09 f _z (in/tooth)	a _e 0.118 - 0.276 Feed SCMT12 f _z (in/tooth)	a _e 0.315 - 0.433 Feed SCMT12 f _z (in/tooth)	Speed V _C (m/min)	Feed f _z (mm/tooth)	Speed V _C (m/min)	Feed f _z (mm/tooth)
◆ Unalloyed Steels	425 - 985	0.005 - 0.012	0.005 - 0.012	0.005 - 0.009	-	-	-	-
◆ Alloyed Steels	345 - 655	0.005 - 0.010	0.005 - 0.010	0.005 - 0.008	-	-	-	-
◆ Stainless Steels	375 - 785	0.005 - 0.010	0.005 - 0.010	0.005 - 0.007	-	-	-	-
◆ PH Stainless	-	-	-	-	-	-	-	-
◆ Cast Irons	345 - 1195	0.005 - 0.012	0.005 - 0.012	0.005 - 0.010	-	-	-	-
◆ Aluminum & Alloys	1310 - 3280	0.005 - 0.009	0.005 - 0.009	0.005 - 0.008	-	-	-	-
◆ High Temp. Alloys	98 - 280	0.002 - 0.005	0.002 - 0.005	0.002 - 0.003	-	-	-	-
◆ Hard Steels (52-56 HRc)	-	-	-	-	-	-	-	-

Star Guide Key to Recommended Inserts

Material Designations				
◆ Unalloyed Steels	◆ Stainless Steels	◆ Cast Irons	◆ High Temp. Alloys	
◆ Alloyed Steels	◆ PH Stainless	◆ Aluminum & Alloys	◆ Hard Materials	

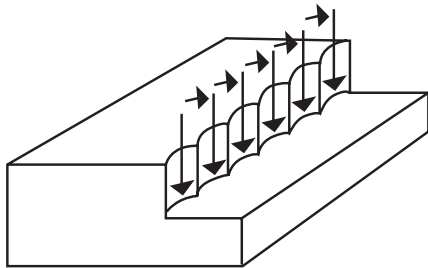


Technical Data

Tool Definition - Scallop height and step over

Diameter	Tool definition (in)						
	1.5	2	2.5	3	4	5	6
Insert size	0.354	0.354	0.472	0.472	0.472	0.472	0.472
a_e max	0.315	0.315	0.394	0.394	0.394	0.394	0.394
Scallop height	Step over (in)						
	0.010	0.248	0.278	0.312	0.352	0.393	0.440
0.020	0.350	0.392	0.440	0.496	0.555	0.621	0.681
0.030	0.427	0.479	0.538	0.607	0.679	0.760	0.833
0.039	0.492	0.551	0.620	0.700	0.783	0.877	0.961
0.079	0.686	0.771	0.870	0.983	1.102	1.235	1.355
0.118	0.830	0.935	1.056	1.197	1.343	1.506	1.654
0.157	0.945	1.068	1.210	1.373	1.543	1.732	1.903
0.197	1.042	1.181	1.341	1.525	1.716	1.929	2.120
0.236	1.125	1.279	1.456	1.659	1.870	2.104	2.314
0.276	1.197	1.366	1.559	1.780	2.009	2.263	2.491
0.315	1.260	1.443	1.652	1.890	2.136	2.409	2.654
0.354			1.736	1.990	2.253	2.544	2.805
0.394			1.813	2.083	2.362	2.670	2.946

The scallop height is calculated in relation with the step over.

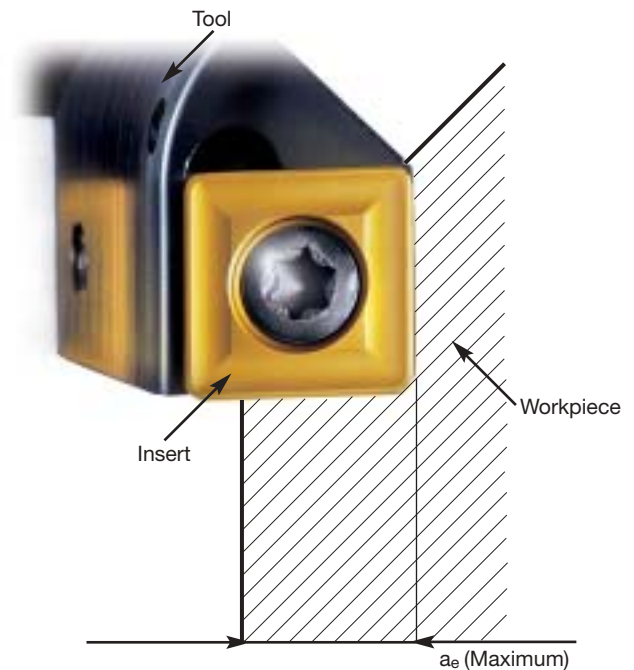
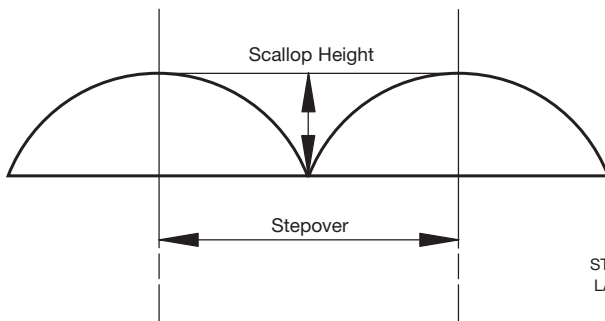


The maximum radial engagement is directly in relation with insert cutting edge length.

For insert type: **SC...09** the a_e , max is 0.315".

For insert type: **SC...12** the a_e , max is 0.433".

The cutting edge should not be in contact with the material face after machining to maintain the cutting edge quality.



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