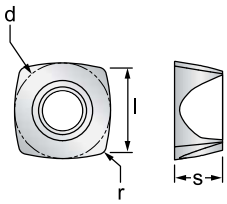
STELLRAM

XELW16-D

XELT16-D41



Product			Application & Material			Dimensions (inch)				
EDP	Item Description	Grade	Facing	Slotting	Plunging	d (IC)	l	s	r	h_m min
			Depth of Cut (inch)							
			a_p max. 0.138	a_p max. 0.118	a_e max. 0.512					
031291	XELW160512SR-D	X400	◆◆◆	◆◆◆	◆◆◆	0.661	0.661	0.219	0.047	0.005
031292	XELW160512SR-D	SC3025	◆	◆	◆	0.661	0.661	0.219	0.047	0.005
031293	XELT160512ER-D41	X500	■◆◆	■◆	■◆◆	0.661	0.661	0.219	0.047	0.005
031294	XELT160512ER-D41	SP6519	●●◆■●■	●●◆■●■	●●◆■●■	0.661	0.661	0.219	0.047	0.005
033069	XELT160512ER-D41	SC6525	■■■	■■■	■■■	0.661	0.661	0.219	0.047	0.005

Machining Choice: ◆ 1st Choice ■ 2nd Choice ● 3rd Choice | Material Guide Key descriptions found on page A5.

7792VXE16 Feeds f_z (inch/tooth)

Geometry	Grade	Operation	Unalloyed Steel	Alloyed Steel	Stainless Steel	Stainless Steel Refractory PH	Gray Iron	Spheroidal-Ductile Iron	Malleable Iron	Aluminum & Alloys <16% Si 116 HBN	Aluminum & Silicon >16% Si 92 HBN	HTA Iron Based Alloys	HTA Cobalt Based Alloys	HTA Nickel Based Alloys	HTA Titanium Based Alloys	Hard Steel >1400 N/mm² >415 HBN	Chilled Cast Iron >1400 N/mm² >400 HBN
			Min. - Max.	Min. - Max.	Min. - Max.	Min. - Max.	Min. - Max.	Min. - Max.	Min. - Max.	Min. - Max.	Min. - Max.	Min. - Max.	Min. - Max.	Min. - Max.	Min. - Max.	Min. - Max.	Min. - Max.
SR-D	X400	Facing	0.012 - 0.079	0.012 - 0.071	-	-	-	-	-	-	-	-	-	-	-	0.012 - 0.031	0.012 - 0.039
SR-D	X400	Slotting	0.012 - 0.067	0.012 - 0.059	-	-	-	-	-	-	-	-	-	-	-	0.012 - 0.020	0.012 - 0.024
SR-D	X400	Plunging	0.004 - 0.010	0.004 - 0.008	-	-	-	-	-	-	-	-	-	-	-	0.004 - 0.004	0.004 - 0.005
SR-D	SC3025	Facing	-	-	-	-	0.012 - 0.080	0.012 - 0.071	0.012 - 0.059	-	-	-	-	-	-	-	-
SR-D	SC3025	Slotting	-	-	-	-	0.012 - 0.060	0.012 - 0.051	0.012 - 0.047	-	-	-	-	-	-	-	-
SR-D	SC3025	Plunging	-	-	-	-	0.004 - 0.008	0.004 - 0.007	0.004 - 0.006	-	-	-	-	-	-	-	-
ER-D41	X500	Facing	-	-	0.008 - 0.040	0.008 - 0.025	-	-	-	-	-	0.008 - 0.024	0.008 - 0.024	0.008 - 0.024	0.008 - 0.032	-	-
ER-D41	X500	Slotting	-	-	0.008 - 0.032	0.008 - 0.020	-	-	-	-	-	0.004 - 0.016	0.004 - 0.016	0.004 - 0.016	0.004 - 0.020	-	-
ER-D41	X500	Plunging	-	-	0.005 - 0.006	0.003 - 0.005	-	-	-	-	-	0.002 - 0.004	0.002 - 0.004	0.002 - 0.004	0.002 - 0.005	-	-
ER-D41	SP6519	Facing	0.012 - 0.059	0.012 - 0.047	0.008 - 0.040	0.008 - 0.020	0.012 - 0.070	0.012 - 0.055	-	-	-	0.008 - 0.024	0.008 - 0.024	0.008 - 0.024	0.008 - 0.032	-	-
ER-D41	SP6519	Slotting	0.012 - 0.047	0.012 - 0.043	0.008 - 0.032	0.008 - 0.018	0.012 - 0.050	0.012 - 0.045	-	-	-	0.004 - 0.016	0.004 - 0.016	0.004 - 0.016	0.004 - 0.020	-	-
ER-D41	SP6519	Plunging	0.004 - 0.009	0.004 - 0.008	0.005 - 0.006	0.003 - 0.005	0.004 - 0.008	0.004 - 0.006	-	-	-	0.002 - 0.004	0.002 - 0.004	0.002 - 0.004	0.002 - 0.005	-	-
ER-D41	SC6525	Facing	0.012 - 0.047	0.012 - 0.038	-	-	0.012 - 0.070	0.012 - 0.055	-	-	-	-	-	-	-	-	-
ER-D41	SC6525	Slotting	0.012 - 0.045	0.012 - 0.035	-	-	0.012 - 0.050	0.012 - 0.045	-	-	-	-	-	-	-	-	-
ER-D41	SC6525	Plunging	0.004 - 0.009	0.004 - 0.008	-	-	0.004 - 0.008	0.004 - 0.006	-	-	-	-	-	-	-	-	-

Note: HTA = High Temperature Alloys

Note: Speed recommendations can be found on page A74.

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Speed v_c (SFM)

7792VX Series			Wear Resistance – +																	
			Speed min. - max.																	
Coolant Recommendation: Recommended ● Possible ⦿					PVD X Grade			CVD X Grade			PVD Standard			Uncoated Micrograin			CVD Standard			CVD Standard
ISO	Materials	Rm and Hardness			X400			X500			SP6519			GH2			SC6525			SC3025
P	Unalloyed Steel	<600 N/mm² <180 HBN	⦿	●	395 - 855				⦿	●	425 - 970				⦿	●	460 - 1190			
		<950 N/mm² <280 HBN			345 - 755						375 - 855						395 - 1050			
	Alloyed Steel	700-950 N/mm² 200-280 HBN	⦿	●	310 - 655	⦿	●	330 - 690	⦿	●	330 - 755				⦿	●	345 - 930			
		950-1200 N/mm² 280-355 HBN			230 - 490			245 - 525			245 - 575						260 - 705			
		1200-1400 N/mm² 355-415 HBN		●	150 - 310		●	165 - 330		●	165 - 360					●	165 - 445			
M	Stainless Steel	Austenitic + Ferritic 300 series				⦿	●	375 - 820	⦿	●	375 - 885									
		Martensitic 400 series						330 - 720			345 - 770									
	PH Stainless	Refractory P.H.				●		165 - 360	●		165 - 395									
K	Cast Iron	Grey GG-Ft						395 - 920			460 - 970						475 - 1280			445 - 950
		Spheroidal-Ductile GGG-FGS				⦿	●	345 - 675	⦿	●	360 - 785					●	375 - 1000		●	395 - 805
		Malleable GTS - MN/MP						310 - 560			330 - 720									375 - 655
N	Aluminum & Alloys	Aluminum & Alloys < 16% Si 116 HBN							●		1000 - 7000	●		1310 - 9005						
		Aluminum + Silicon > 16% Si 92 HBN									800 - 5800			970 - 7005						
S	High Temperature Alloys	Iron Based						75 - 160			75 - 180									
		Cobalt Based				●		70 - 145	●		70 - 160									
		Nickel Based						80 - 170			80 - 180									
		Titanium Based						115 - 240			120 - 260									
H	Hard Materials	Hard Steel >1400 N/mm² >415 HBN		●	150 - 310															
		Chilled Cast Iron >1400 N/mm² > 400 HBN			115 - 260															