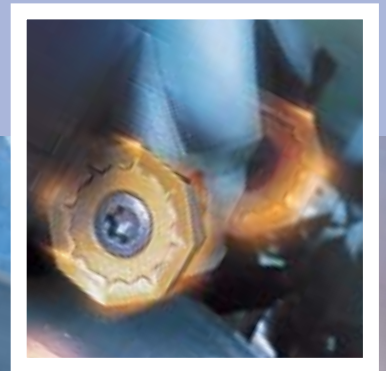
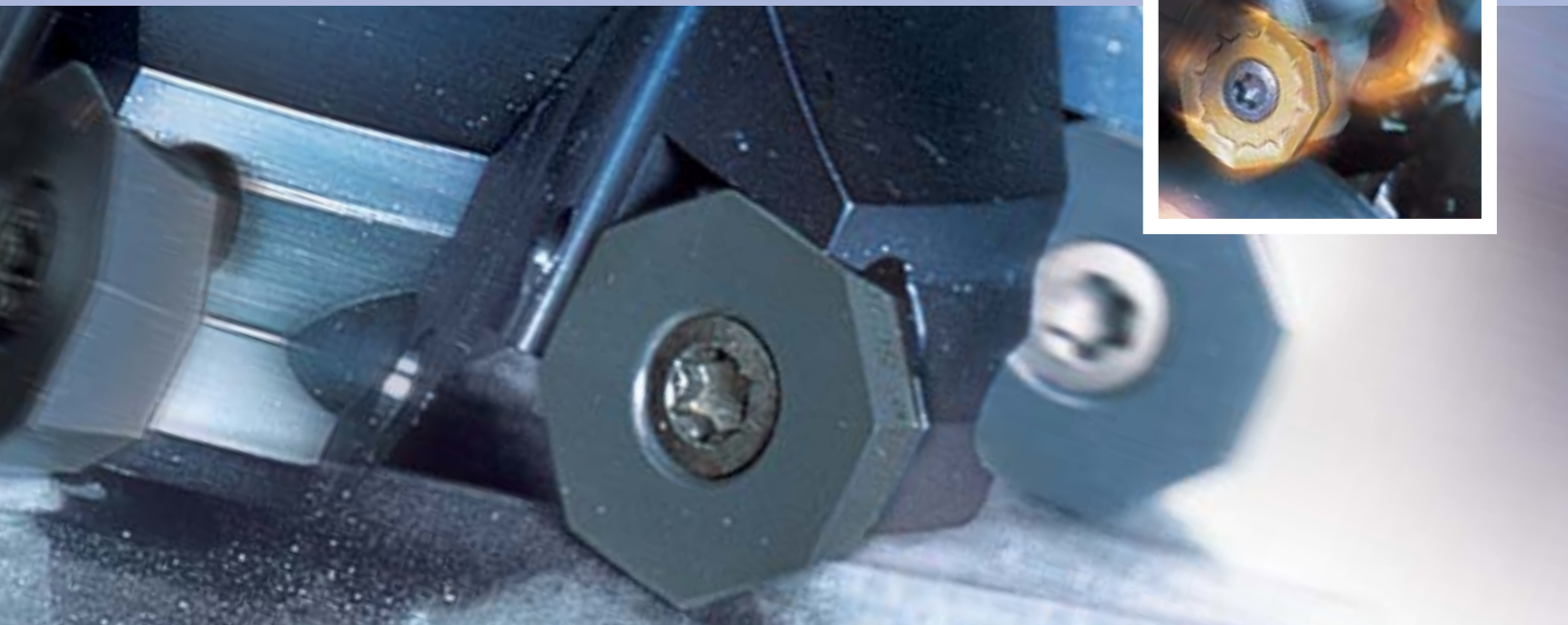


VOD06 new close pitch

Cutters and inserts for maximum metal removal



THE TOOLING

7745 VOD.
45° Facemill.

THE MATERIAL

All steels, stainless steels, cast irons, aluminum and alloys and high temperature alloys.

THE APPLICATION

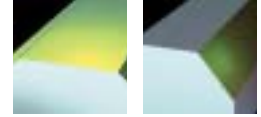
Face milling, ramp milling, pocket milling and chamfering.

PERFORMANCE FEATURES

- 1 tool, multiple operations.
- 8 economical cutting edges per insert.
- Thick and strong inserts for greater machining security.
- New CVD and PVD grades available for all applications.
- Standard and close pitch cutter range from 50mm up to 160mm diameter.
- New close pitch diameter cutters allow higher feed rate with improved finishes when utilizing -RA faceted cutting geometry.
- Combination of close pitch and new grade SC3025 offer outstanding performance for cast iron machining.

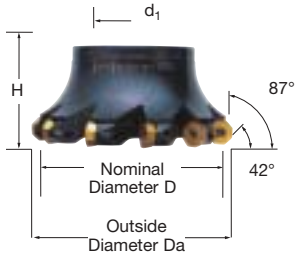
Stellram[®] tooling systems for all your milling requirements.

7745 VOD 06 Milling Cutter



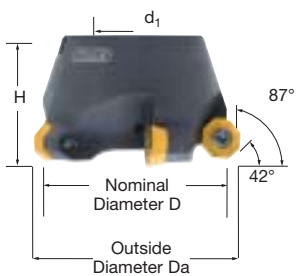
7745 VOD06 Close Pitch

New!



EDP #	Part Number	Dimensions (inch)							No. of Inserts	Spares			
		D	H	l_2	d_1	a	$a_{1 \max}$	EDP#		Screw	EDP#	Driver	
027879	C7745VOD06 -A3.00Z07R	3.000	1.960	-	1.000	0.173	0.445	7	015270	F4011T	015241	T20	
027880	C7745VOD06 -A4.00Z09R	4.000	2.160	-	1.250	0.173	0.445	9	015270	F4011T	015241	T20	
027881	C7745VOD06 -A5.00Z11R	5.000	2.480	-	1.500	0.173	0.445	11	015270	F4011T	015241	T20	
027882	C7745VOD06 -6.00Z13R	6.000	2.480	-	1.500	0.173	0.445	13	015270	F4011T	015241	T20	

7745 VOD 06 Medium Pitch



EDP #	Part Number	Dimensions (mm)							No. of Inserts	Spares			
		D	H	l_2	d_1	a	$a_{1 \max}$	EDP#		Screw	EDP#	Driver	
026561	C7745VOD06 -A2.00R	2.000	1.570	-	0.750	0.173	0.445	4	015270	F4011T	015241	T20	
026562	C7745VOD06 -A2.50R	2.500	1.570	-	0.750	0.173	0.445	5	015270	F4011T	015241	T20	
026563	C7745VOD06 -A3.00R	3.000	1.960	-	1.000	0.173	0.445	6	015270	F4011T	015241	T20	
026564	C7745VOD06 -A4.00R	4.000	2.160	-	1.250	0.173	0.445	7	015270	F4011T	015241	T20	
026565	C7745VOD06 -A5.00R	5.000	2.480	-	1.500	0.173	0.445	8	015270	F4011T	015241	T20	
026566	C7745VOD06 -6.00R	6.000	2.480	-	1.500	0.173	0.445	10	015270	F4011T	015241	T20	

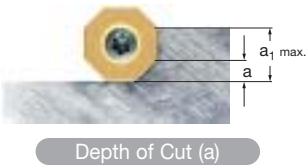
Milling cutters with through coolant except $\phi 6''$.

7745 VOD 06 Technical Advice

Linear Ramp Down ϵ

Milling Cutter		Ramp Angle ϵ	$a_1 \max$ (Depth of Cut)
Nominal Diameter	Diameter ϕDa		
$\phi 2.0$	$\phi 2.41$	6.0°	0.394
$\phi 2.5$	$\phi 2.91$	4.6°	0.394
$\phi 3.0$	$\phi 3.41$	3.3°	0.394
$\phi 4.0$	$\phi 4.41$	2.6°	0.394
$\phi 5.0$	$\phi 5.41$	2.0°	0.394
$\phi 6.0$	$\phi 6.41$	1.6°	0.394

LM Max. Ramp distance is $LM = a / \tan \epsilon$

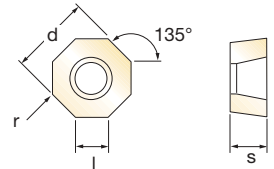


Hole Milling with Circular Interpolation:

Milling Cutter		Hole ϕ Diameter		Ramp Angle ϵ
Nominal Diameter	Diameter ϕDa	D min.	D max.	
$\phi 2.0$	$\phi 2.41$	$\phi 3.94$	$\phi 4.77$	0.4°
$\phi 2.5$	$\phi 2.91$	$\phi 4.94$	$\phi 5.77$	1.15°
$\phi 3.0$	$\phi 3.41$	$\phi 5.94$	$\phi 6.77$	0.95°
$\phi 4.0$	$\phi 4.41$	$\phi 7.94$	$\phi 8.77$	0.75°
$\phi 5.0$	$\phi 5.41$	$\phi 9.94$	$\phi 10.77$	0.6°
$\phi 6.0$	$\phi 6.41$	$\phi 11.94$	$\phi 13.77$	0.5°

Maximum depth of cut per revolution = .228"

Inserts for 7745 VOD 06



EDP#	Part Number	Grade	Application & Material			Dimensions (inch)				
			Roughing	Semi-Finishing	Finishing	d	l	s	r	h _m min
026591	ODET 06 05APEN-44	MP91M	▼	▼▼	◆	0.630	0.236	0.219	Facet	0.0028
026598	ODET 06 05APEN-44	SP4036			◆	0.630	0.236	0.219	Facet	0.0028
026592	ODET 06 05APEN-44	X500			◆◆	0.630	0.236	0.219	Facet	0.0028
027891	ODET 06 05APEN-44	SP6564			◆◆	0.630	0.236	0.219	Facet	0.0028
026588	ODET 06 05APFN-441	GH1	◆	◆	◆	0.630	0.236	0.219	Facet	0.0008
026589	ODMT 06 05APEN-41	MP91M		◆		0.630	0.236	0.219	Facet	0.0057
026597	ODMT 06 05APEN-41	SP4036			◆	0.630	0.236	0.219	Facet	0.0057
026590	ODMT 06 05APEN-41	X500	◆	◆◆		0.630	0.236	0.219	Facet	0.0057
027892	ODMT 06 05APEN-41	SP6564		◆◆		0.630	0.236	0.219	Facet	0.0057
025836	ODMW 06 0512SN	MP91M	◆			0.630	0.236	0.219	0.047	0.0075
025837	ODMW 06 0512SN	SF30				0.630	0.236	0.219	0.047	0.0075
025838	ODMW 06 0512SN	X500				0.630	0.236	0.219	0.047	0.0075
027743	ODMW 06 0512SN	SP6564	◆◆			0.630	0.236	0.219	0.047	0.0075
026595	ODMW 06 0512TN	MP91M				0.630	0.236	0.219	0.047	0.0075
026599	ODMW 06 0512TN	SP4036		◆		0.630	0.236	0.219	0.047	0.0075
026596	ODMW 06 0512TN	X500	◆			0.630	0.236	0.219	0.047	0.0075
027893	ODMW 06 0512TN	SP6564	◆◆			0.630	0.236	0.219	0.047	0.0075
New! 027885	ODEW 06 05APTR-RA	SC3025	◆	◆	◆	0.630	0.236	0.219	Facet	0.0075



OD_06 Recommended Cutting Conditions

Material	▼ Roughing			▼▼ Semi-Finishing			▼▼▼ Finishing		
	Speed V _C (feet/min)	Feed f _z (inch/tooth)	D.O.C. a _p (inch)	Speed V _C (feet/min)	Feed f _z (inch/tooth)	D.O.C. a _p (inch)	Speed V _C (feet/min)	Feed f _z (inch/tooth)	D.O.C. a _p (inch)
◆ Unalloyed Steels	600 - 720	0.012 - 0.028	0.10 - 0.18	730 - 850	0.008 - 0.016	0.04 - 0.08	730 - 980	0.003 - 0.006	0.01 - 0.04
◆ Alloyed Steels	230 - 360	0.011 - 0.020	0.10 - 0.18	330 - 490	0.008 - 0.014	0.04 - 0.08	330 - 630	0.003 - 0.006	0.01 - 0.04
◆ Stainless Steels	400 - 450	0.011 - 0.016	0.10 - 0.18	460 - 590	0.006 - 0.010	0.04 - 0.08	600 - 750	0.002 - 0.006	0.01 - 0.04
◆ PH Stainless	190 - 220	0.006 - 0.012	0.10 - 0.18	230 - 270	0.004 - 0.008	0.04 - 0.08	270 - 320	0.002 - 0.004	0.01 - 0.04
◆ Cast Irons	510 - 960	0.008 - 0.018	0.10 - 0.18	640 - 1020	0.006 - 0.014	0.04 - 0.08	700 - 1180	0.005 - 0.011	0.01 - 0.04
◆ Aluminium & Alloys	910 - 1470	0.008 - 0.014	0.10 - 0.18	1320 - 2460	0.004 - 0.010	0.04 - 0.08	2300 - 3280	0.002 - 0.006	0.01 - 0.04
◆ High Temp. Alloys	90 - 130	0.007 - 0.010	0.10 - 0.18	120 - 160	0.004 - 0.008	0.04 - 0.08	150 - 190	0.002 - 0.004	0.01 - 0.04
◆ Hard Steels (52-56 HRC)	-	-	-	170 - 270	0.002 - 0.005	0.02 - 0.06	170 - 320	0.001 - 0.002	0.01 - 0.02

h_m = average chip thickness

Star Guide Key to Recommended Tools



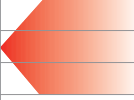
Material Designations						
	P ◆	Unalloyed Steels	M ◆	Stainless Steels	K ◆	Cast Irons
	P ◆	Alloyed Steels	M ◆	PH Stainless	N ◆	Aluminum & Alloys
				S ◆	H ◆	High Temp. Alloys Hard Materials



Technical Data: SC3025

ISO Grade Chart

New!

Materials	CODE		Coated CVD	
	C	ISO	GRADE	
 Cast Irons 	C4	K01		
		K05		
	C3	K10		
		K15		
		K20		
	C2	K25		
		C1	K30	
			K35	
			K40	

SC3025 - New grade

- Excellent wear and abrasion resistance offering 25% - 50% longer tool life.
- New RA wiper facet on 8-sided ODEW insert combines with SC3025 to provide 50% higher feed rates in cast iron face milling operations.
- Better surface finishes at increased speed rates are achievable with the new RA facet.
- A, O and T insert styles.

Case studies:

Material: **Ductile Iron**
 Cutter: **C7745VOD06-A3.00R**
 Insert: **ODEW0605APTR-RA SC3025**
 Cutter Diameter = **3"**
 Cutting Speed = **920 SFM**
 Number of Teeth = **6**
 Feed per Tooth = **0.011"**
 Feed = **77 IPM**
 DOC = **0.157"**

Results: *Competition* **Stellram**
 32 pieces **64 pieces**

100% increase in productivity

Material: **Ductile Iron**
 Cutter: **C7745VOD06-A3.00Z07R**
 Insert: **ODEW0605APTR-RA SC3025**
 Cutter Diameter = **3"**
 Cutting Speed = **1070 SFM**
 Number of Teeth = **7**
 Feed per Tooth = **0.015"**
 Feed = **143 IPM**
 DOC = **0.157"**

Results: *Competition* **Stellram**
 150 pieces **240 pieces**

60% increase in productivity

Note: For specific technical data, please refer to the milling catalog.

North American locations:

STELLRAM (CANADA), 244 BRITANNIA ROAD EAST, MISSISSAUGA, ONTARIO, CANADA L4Z 1S6
TEL: (800) 668 6928 FAX: (800) 432 6227



STELLRAM S.A. DE C.V. BLVD. JOSE MARIA MORELOS #3550,
 SAN MIGUEL DE RENTERIA, LEON GTO. MEXICO 37278.
TEL: (52 477) 711 3593 FAX: (52 477) 711 5587

STELLRAM U.S.A. 1 TELEDYNE PLACE, LAVERGNE,
 TENNESSEE, U.S.A. 37086

TEL: 615 641 4200

CUSTOMER ORDER & TECHNICAL TEL: **800 232 1200**
 CUSTOMER ORDER & TECHNICAL FAX: **800 223 2219**



www.stellram.com

© 2002, Stellram, An Allegheny Technologies Company.
 The Starburst Logo is a registered trademark of ATI Properties, Inc.
 Stellram is a registered trademark of Stellram S.A.
 An Allegheny Technologies Company.

Aerostell, Posidisc and Posicut are registered trademarks of Stellram.
 Star Guide and Metalcutting Answers are trademarks of Stellram.
 All other trademarks are the property of their respective companies.

LITERATURE RE-ORDER NUMBER
339FLYUSA.V1
 SUPERIOR 12/02 - PRINTED IN THE U.K.