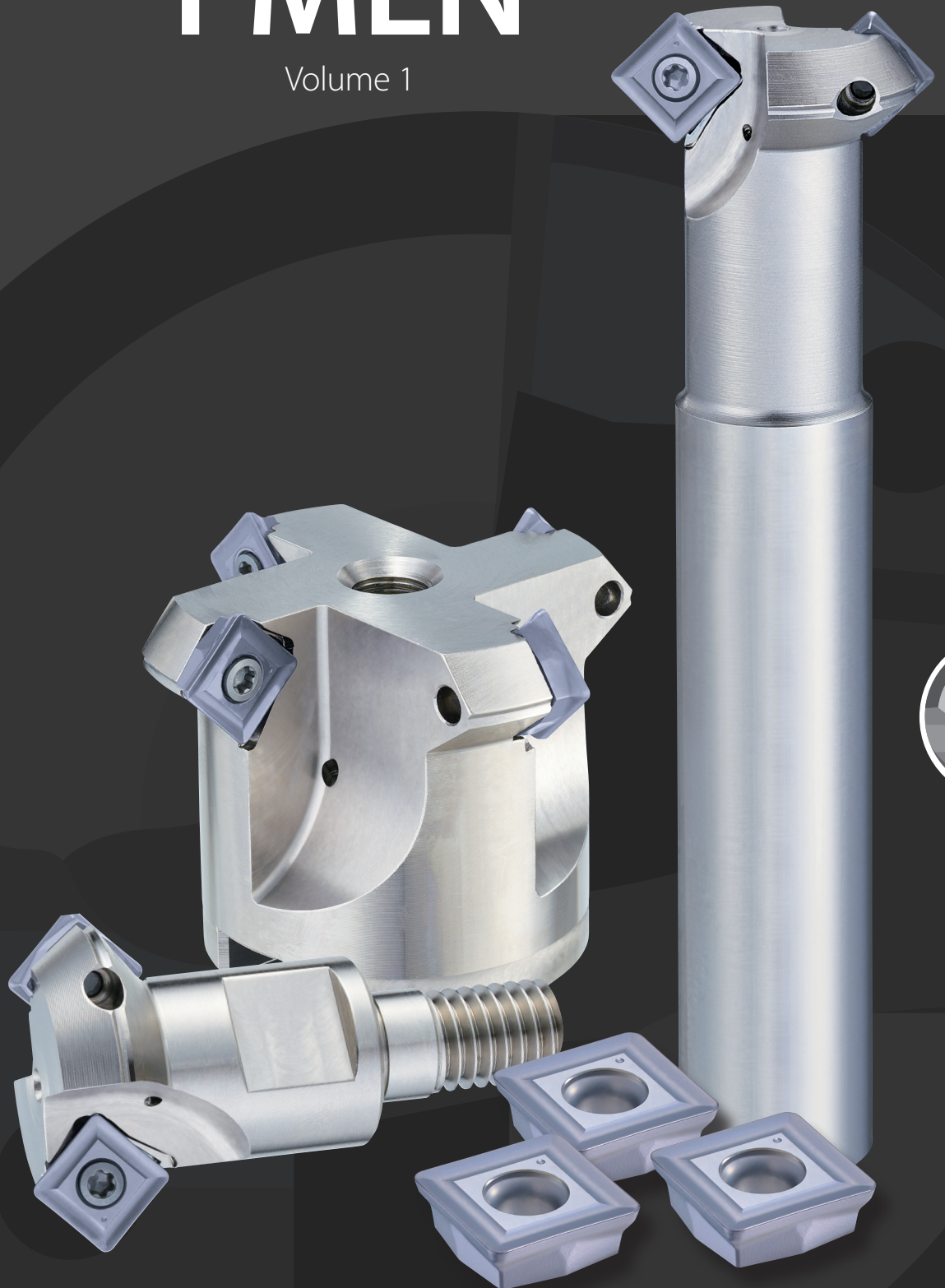




Phoenix Chamfering Cutter

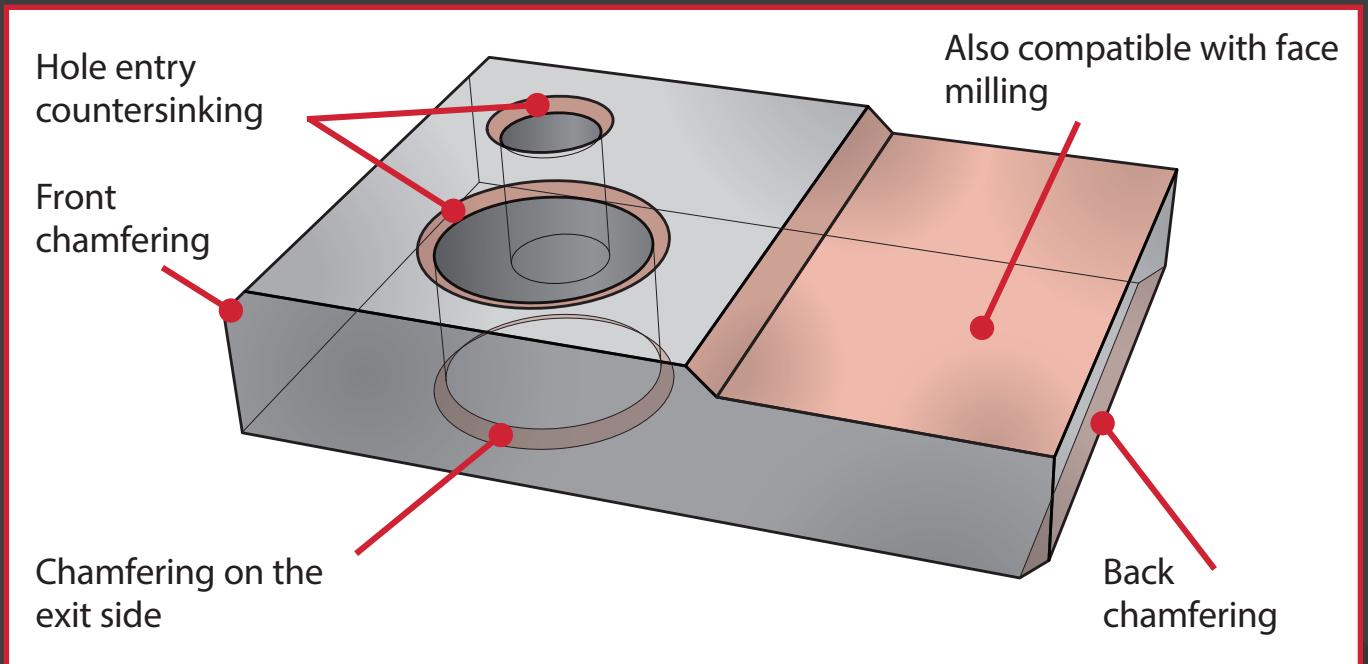
PMEN

Volume 1



KEY FEATURES: PMEN

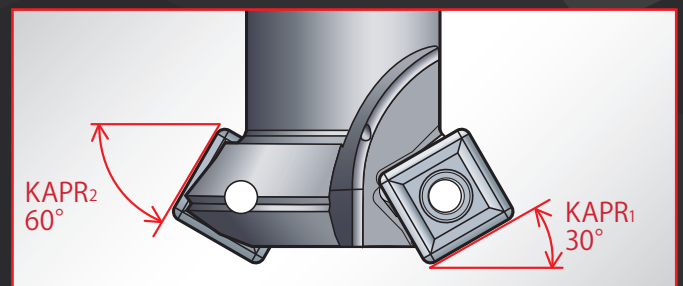
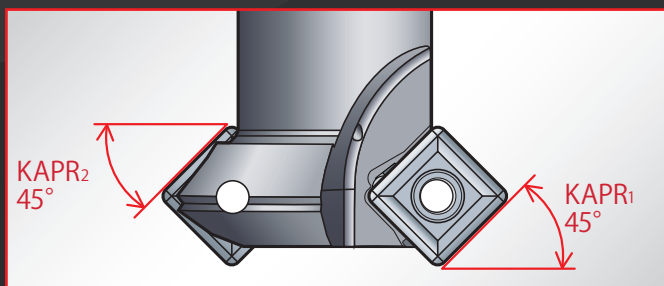
Chamfering cutter capable of front and back chamfering



Common insert and two types of body shapes allow chamfering at 30°, 45°, and 60°

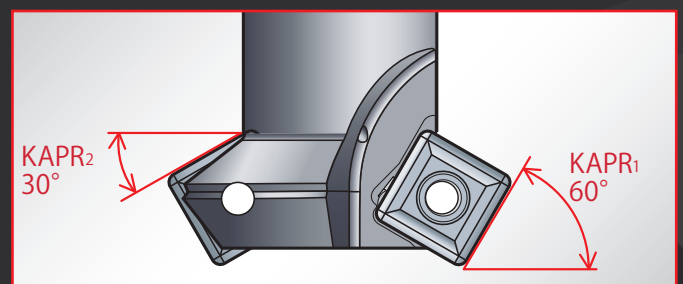
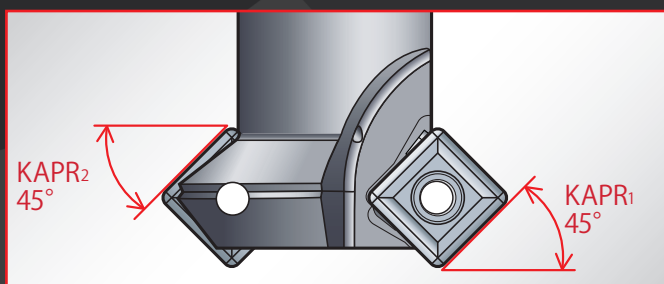
Body compatible with chamfer angles (KAPR₁) 45° and 30°

PAT. in Japan



Body compatible with chamfer angles (KAPR₁) 45° and 60°

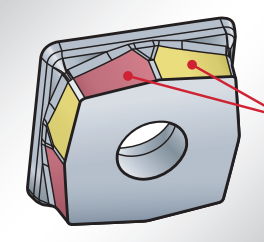
PAT. in Japan



PHOENIX CHAMFERING CUTTER

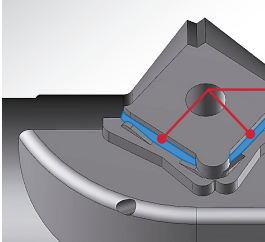
The chamfer angle can be set on the insert constraint surface

Two types of chamfer angles can be set with one body by combining the insert constraint surface and the body constraint surface

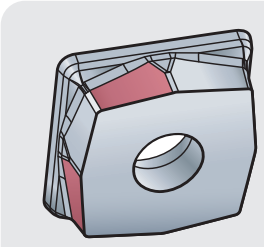


PAT. in Japan

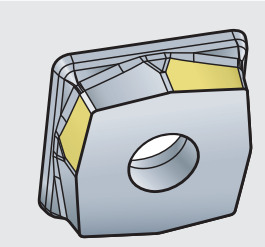
Constraint surface that allows two types of chamfer angles



Body constraint surface

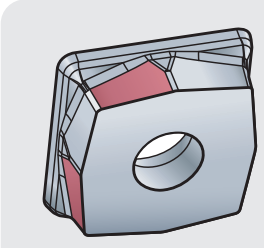


KAPR₁ 45°

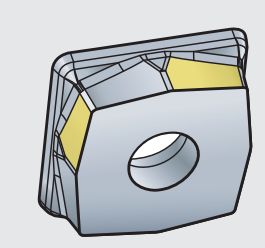


KAPR₁ 30°

Combination of front chamfering angles of 45° and 30°



KAPR₁ 60°



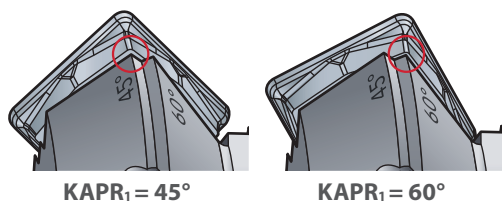
KAPR₁ 45°

Combination of front chamfering angles of 45° and 60°

The back chamfering angle (KAPR₂) can be calculated by using the following formula. **KAPR₂ = 90° - KAPR₁**

Body shapes where the set chamfer angle (KAPR₁) can be checked

Example of setting the front chamfering angle (KAPR₁)



The chamfer angle (KAPR₁) is a value engraved on the body. To setup, align the insert corner with the top of the body.

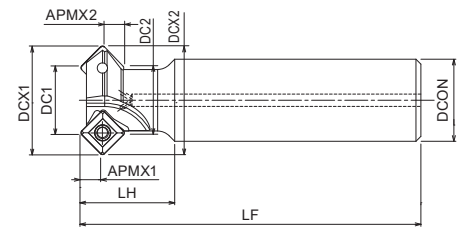
Please be sure to check the chamfer angle before use.

Insert grades compatible with a wide range of work materials

Steel•Cast Iron	Stainless Steel•Heat Resistant Alloy	Aluminum Alloy
XP3015	XP2040	CK010

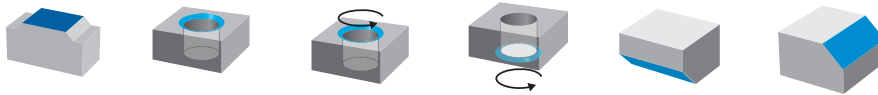
PMEN SS

Chamfering | Indexables



with Coolant Hole

- Chamfering Cutter
- Body compatible with chamfer angles (KAPR1) 45°, 30° and 60°
- With coolant hole
- 8,5 - 35,6 mm



EDP	Designation	KAPR1	KAPR2	DC1	DCX1	DC2	DCX2	APMX1	APMX2	ZEFP	DCON	LF	LH	Kg
7803750	PMEN09R008SS20-30-45	45°	45°	8,5	19,5	16	19,5	5,7	1,7	1	20	90	30	0,17
		30°	60°	5,4	18,8	16	19,4	4	3	1	20	90	30	0,17
7803751	PMEN09R016SS20-30-45	45°	45°	16,5	27,5	16,5	27,5	5,7	5,5	2	20	90	30	0,2
		30°	60°	13,4	26,8	19,8	27,4	4	6,8	2	20	90	30	0,2
7803752	PMEN09R020SS20-30-45	45°	45°	20,5	31,5	20,5	31,5	5,7	5,5	2	20	120	40	0,35
		30°	60°	17,4	30,8	23,8	31,4	4	6,8	2	20	120	40	0,35
7803753	PMEN09R025SS25-30-45	45°	45°	25,5	36,5	25,5	36,5	5,7	5,5	2	25	120	40	0,4
		30°	60°	22,4	35,8	28,8	36,4	4	6,8	2	25	120	40	0,4
7803754	PMEN09R032SS32-30-45	45°	45°	32,5	43,5	32,5	43,5	5,7	5,5	3	32	120	40	0,65
		30°	60°	29,4	42,8	35,8	43,4	4	6,8	3	32	120	40	0,65
7803763	PMEN09R008SS20-45-60	45°	45°	8,5	19,5	16	19,5	5,7	1,7	1	20	90	30	0,17
		60°	30°	11,5	19,4	16	18,8	7	1	1	20	90	30	0,17
7803764	PMEN09R016SS20-45-60	45°	45°	16,5	27,5	16,5	27,5	5,7	5,5	2	20	90	30	0,2
		60°	30°	19,6	27,4	16,6	26,9	7	3	2	20	90	30	0,2
7803765	PMEN09R020SS20-45-60	45°	45°	20,5	31,5	20,5	31,5	5,7	5,5	2	20	120	40	0,35
		60°	30°	23,6	31,4	20,6	30,9	7	3	2	20	120	40	0,35
7803766	PMEN09R025SS25-45-60	45°	45°	25,5	36,5	25,5	36,5	5,7	5,5	2	25	120	40	0,4
		60°	30°	28,6	36,4	25,6	35,9	7	3	2	25	120	40	0,4
7803767	PMEN09R032SS32-45-60	45°	45°	32,5	43,5	32,5	43,5	5,7	5,5	3	32	120	40	0,65
		60°	30°	35,6	43,4	32,6	42,9	7	3	3	32	120	40	0,65

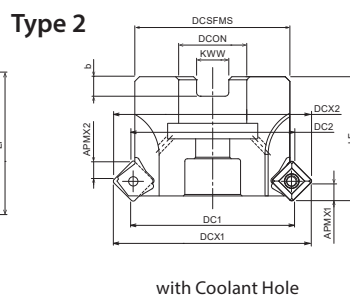
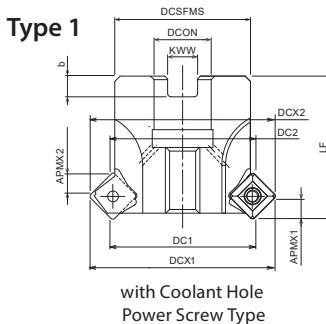
Accessories & spare parts

Clamping screw	Designation	Recommended Tightening Torque	Wrench	Designation	Power screw	Designation	Applicable Body
7808135	FS30570P (Torx 9IP)	2,2 N·m	7808226	9IP-D (Torx 9IP)	7808150	PS0830 (M8x30)	PMEN09R040M16...

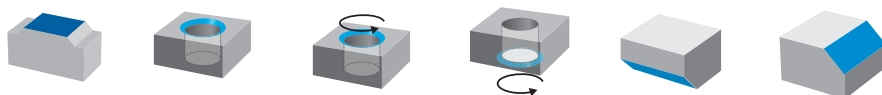
The wrenches are sold separately from the cutters.

PMEN BORE

Chamfering | Indexables



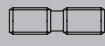


- Chamfering Cutter
- Body compatible with chamfer angles (KAPR1) 45°, 30° and 60°
- With coolant hole
- 40,5 - 63,6 mm



EDP	Designation	KAPR1	KAPR2	DC1	DCX1	DC2	DCX2	APMX1	APMX2	ZEPF	LF	DCSFMS	DCON	Key Slot		Kg	Type
														KWW	b		
7803760	PMEN09R040M16-30-45	45°	45°	40,5	51,5	40,5	51,5	5,7	5,5	4	40	38	16	8,4	5,6	0,23	1
		30°	60°	37,4	50,8	43,8	51,4	4	6,8	4	40	38	16	8,4	5,6	0,23	1
7803761	PMEN09R050M22-30-45	45°	45°	50,5	61,5	50,5	61,5	5,7	5,5	4	40	45	22	10,4	6,3	0,3	2
		30°	60°	47,4	60,8	53,8	61,4	4	6,8	4	40	45	22	10,4	6,3	0,3	2
7803762	PMEN09R060M22-30-45	45°	45°	60,5	71,5	60,5	71,5	5,7	5,5	5	40	50	22	10,4	6,3	0,45	2
		30°	60°	57,4	70,8	63,8	71,4	4	6,8	5	40	50	22	10,4	6,3	0,45	2
7803773	PMEN09R040M16-45-60	45°	45°	40,5	51,5	40,5	51,5	5,7	5,5	4	40	38	16	8,4	5,6	0,23	1
		60°	30°	43,6	51,4	40,6	50,9	7	3	4	40	38	16	8,4	5,6	0,23	1
7803774	PMEN09R050M22-45-60	45°	45°	50,5	61,5	50,5	61,5	5,7	5,5	4	40	45	22	10,4	6,3	0,3	2
		60°	30°	53,6	61,4	50,6	60,9	7	3	4	40	45	22	10,4	6,3	0,3	2
7803775	PMEN09R060M22-45-60	45°	45°	60,5	71,5	60,5	71,5	5,7	5,5	5	40	50	22	10,4	6,3	0,45	2
		60°	30°	63,6	71,4	60,6	70,9	7	3	5	40	50	22	10,4	6,3	0,45	2

Accessories & spare parts

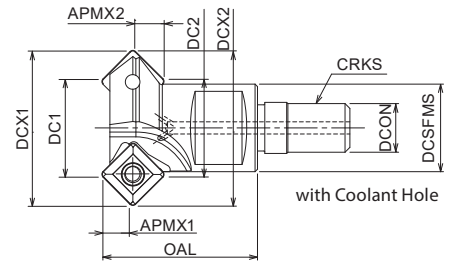
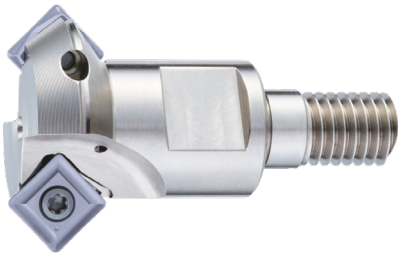
 Clamping screw	Designation	Recommended Tightening Torque	 Wrench	Designation	 Power screw	Designation	Applicable Body
7808135	FS30570P (Torx 9IP)	2,2 N·m	7808226	9IP-D (Torx 9IP)	7808150	PS0830 (M8x30)	PMEN09R040M16...

The wrenches are sold separately from the cutters.

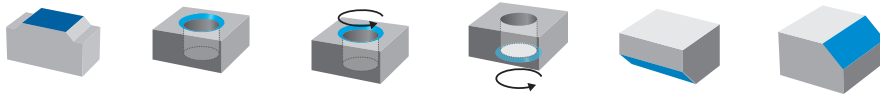


PMEN SF

Chamfering | Indexables



- Chamfering Cutter
- Body compatible with chamfer angles (KAPR1) 45°, 30° and 60°
- With coolant hole
- 8,5 - 35,6 mm



EDP	Designation	KAPR1	KAPR2	DC1	DCX1	DC2	DCX2	APMX1	APMX2	ZEP	DCON	CRKS	Spanner size	OAL	DCSFMS	Kg	Applicable shank
7803755	PMEN09R008SF8-30-45	45°	45°	8,5	19,5	16	19,5	5,7	1,7	1	8,5	M8	10	32	14,5	0,02	5
		30°	60°	5,4	18,8	16	19,4	4	3	1	8,5	M8	10	32	14,5	0,02	5
7803756	PMEN09R016SF8-30-45	45°	45°	16,5	27,5	16,5	27,5	5,7	5,5	2	8,5	M8	10	32	14,5	0,04	3
		30°	60°	13,4	26,8	19,8	27,4	4	6,8	2	8,5	M8	10	32	14,5	0,04	5
7803757	PMEN09R020SF10-30-45	45°	45°	20,5	31,5	20,5	31,5	5,7	5,5	2	10,5	M10	14	32	18	0,06	4
		30°	60°	17,4	30,8	23,8	31,4	4	6,8	2	10,5	M10	14	32	18	0,06	4
7803758	PMEN09R025SF12-30-45	45°	45°	25,5	36,5	25,5	36,5	5,7	5,5	2	12,5	M12	17	35	23	0,12	5
		30°	60°	22,4	35,8	28,8	36,4	4	6,8	2	12,5	M12	17	35	23	0,12	5
7803759	PMEN09R032SF16-30-45	45°	45°	32,5	43,5	32,5	43,5	5,7	5,5	3	17	M16	22	40	28	0,18	6
		30°	60°	29,4	42,8	35,8	43,4	4	6,8	3	17	M16	22	40	28	0,18	6
7803768	PMEN09R008SF8-45-60	45°	45°	8,5	19,5	16	19,5	5,7	1,7	1	8,5	M8	10	32	14,5	0,02	5
		60°	30°	11,5	19,4	16	18,8	7	1	1	8,5	M8	10	32	14,5	0,02	5
7803769	PMEN09R016SF8-45-60	45°	45°	16,5	27,5	16,5	27,5	5,7	5,5	2	8,5	M8	10	32	14,5	0,04	3
		60°	30°	19,6	27,4	16,6	26,9	7	3	2	8,5	M8	10	32	14,5	0,04	3
7803770	PMEN09R020SF10-45-60	45°	45°	20,5	31,5	20,5	31,5	5,7	5,5	2	10,5	M10	14	32	18	0,06	4
		60°	30°	23,6	31,4	20,6	30,9	7	3	2	10,5	M10	14	32	18	0,06	4
7803771	PMEN09R025SF12-45-60	45°	45°	25,5	36,5	25,5	36,5	5,7	5,5	2	12,5	M12	17	35	23	0,12	5
		60°	30°	28,6	36,4	25,6	35,9	7	3	2	12,5	M12	17	35	23	0,12	5
7803772	PMEN09R032SF16-45-60	45°	45°	32,5	43,5	32,5	43,5	5,7	5,5	3	17	M16	22	40	28	0,18	6
		60°	30°	35,6	43,4	32,6	42,9	7	3	3	17	M16	22	40	28	0,18	6

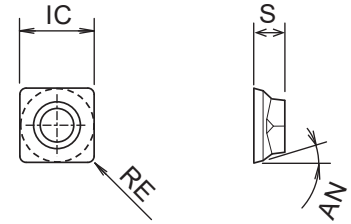
Accessories & spare parts

Clamping screw	Designation	Recommended Tightening Torque	Wrench	Designation	Power screw	Designation	Applicable Body
7808135	FS30570P (Torx 9IP)	2,2 N·m	7808226	9IP-D (Torx 9IP)	7808150	PS0830 (M8x30)	PMEN09R040M16...

The wrenches are sold separately from the cutters.

PMEN INSERTS



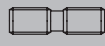
Chamfering | Indexables



- Inserts for Chamfering Cutter

EDP	Designation	Z	IC	S	AN	RE	Grade	P		M		K		N		S		H		Prices
								dry	👉	dry	👉	GG	GGG	dry	👉	dry	👉	dry	👉	
7811072	SOMT090308EN-NM	4	9,52	3,18	14°	0,8	CK010							●						
7817072	SOMT090308EN-GM	4	9,52	3,18	14°	0,8	XP3015	●				●	●							
7813072	SOMT090308EN-GM	4	9,52	3,18	14°	0,8	XP2040	○	○	○	●						○	○		

Accessories & spare parts

 Clamping screw	Designation	Recommended Tightening Torque	 Wrench	Designation	 Power screw	Designation	Applicable Body
7808135	FS30570P (Torx 9IP)	2,2 N·m	7808226	9IP-D (Torx 9IP)	7808150	PS0830 (M8x30)	PMEN09R040M16...

The wrenches are sold separately from the cutters.



CUTTING CONDITIONS

Chamfering | Indexables | Cutting conditions

PMEN

Chamfering Cutter

	Work Material	Tensile Strength / Hardness	Vc (m/min) Cutting Speed	Countersinking (Vertical Feed)			Countersinking (Side Feed)	Frontal Milling ap:3mm
				Feed Rate f(mm/rev)				
				Ø8	Ø16~32	Ø40~60	fz(mm/t) Feed per Tooth	fz(mm/t) Feed per Tooth
P	Mild Steel-Carbon Steel (SS400-S10C)	~180HB	80(60~120)	0,06(0,05~0,08)	0,1(0,05~0,12)	0,15(0,12~0,2)	0,1(0,05~0,12)	0,1(0,05~0,12)
	Carbon Steel-Alloy Steel (S50C-SCM440)	~280HB	80(60~120)	0,08(0,05~0,1)	0,12(0,05~0,14)	0,2(0,12~0,3)	0,1(0,05~0,12)	0,1(0,05~0,12)
	Die Steel (SKD11-SKD61)	~280HB	80(60~120)	0,08(0,05~0,1)	0,12(0,05~0,14)	0,2(0,12~0,3)	0,1(0,05~0,12)	0,1(0,05~0,12)
M	Stainless Steel (Dry) (SUS304-SUS420)	~250HB	80(60~100)	0,08(0,05~0,1)	0,12(0,05~0,14)	0,2(0,12~0,3)	0,1(0,05~0,12)	0,1(0,05~0,12)
	Stainless Steel (Wet) (SUS304, SUS420)	~250HB	80(60~100)	0,08(0,05~0,1)	0,12(0,05~0,14)	0,2(0,12~0,3)	0,1(0,05~0,12)	0,1(0,05~0,12)
K	Cast Iron (FC250)	~350N/mm ²	200(150~280)	0,08(0,05~0,1)	0,12(0,05~0,14)	0,2(0,12~0,3)	0,1(0,05~0,12)	0,1(0,05~0,12)
	Ductile Cast Iron (FCD400)	~800N/mm ²	160(100~220)	0,08(0,05~0,1)	0,12(0,05~0,14)	0,2(0,12~0,3)	0,1(0,05~0,12)	0,1(0,05~0,12)
N	Aluminium Alloys	~13%Si	350(200~500)	0,08(0,05~0,1)	0,12(0,05~0,14)	0,2(0,12~0,3)	0,1(0,05~0,12)	0,1(0,05~0,12)
S	Superalloy (Wet) (Inconel 718)	–	50(30~60)	0,06(0,04~0,08)	0,08(0,05~0,1)	0,1(0,08~0,15)	0,08(0,05~0,1)	0,08(0,05~0,1)
	Titanium Alloy (Wet) (Ti-6Al-4V)	–	60(30~80)	0,06(0,04~0,08)	0,08(0,05~0,1)	0,1(0,08~0,15)	0,08(0,05~0,1)	0,08(0,05~0,1)
H	Pre-hardened Steel (NAK80)	40~43HRC	80(60~100)	0,08(0,05~0,1)	0,12(0,05~0,14)	0,2(0,12~0,3)	0,1(0,05~0,12)	0,1(0,05~0,12)
	Steel for Die Casting (DAC-MAGIC, DH31)	43~48HRC	60(50~80)	0,08(0,05~0,1)	0,12(0,05~0,14)	0,2(0,12~0,3)	0,1(0,05~0,12)	0,1(0,05~0,12)
	Hardened Steel (SKD11)	50~55HRC	50(40~80)	0,08(0,05~0,1)	0,12(0,05~0,14)	0,2(0,12~0,3)	0,1(0,05~0,12)	0,1(0,05~0,12)

The above cutting conditions are to be used as general guidelines. Adjustments may be necessary depending on actual cutting condition.

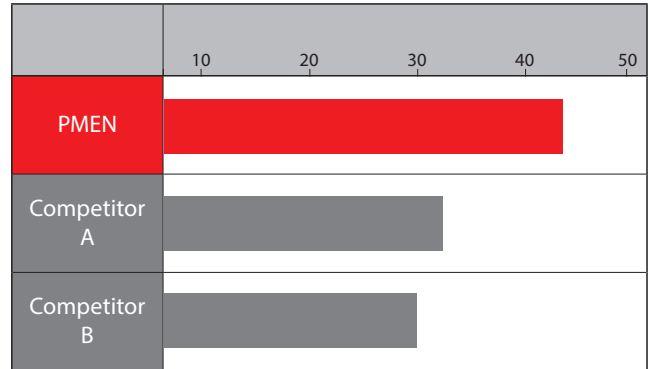


CUTTING DATA

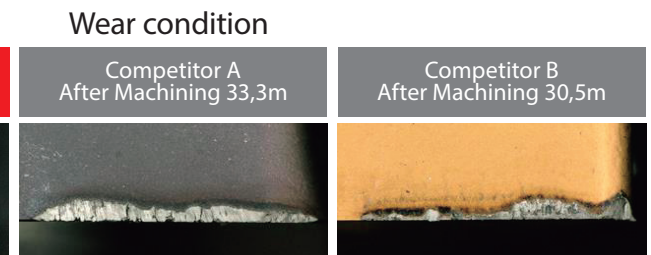
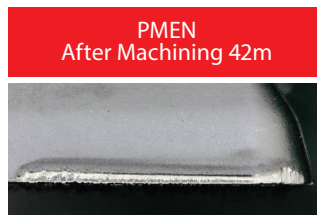
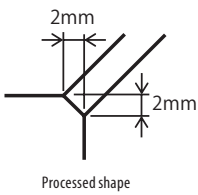
Chamfering | Indexables

S50C C2 chamfering

Tool	PMEN09R008SS20-30-45
Insert Grade	SOMT090308EN-GM(XP3015)
Work Material	S50C
Cutting Speed	150m/min (2.650min ⁻¹)
Feed	265mm/min (0.1mm/t)
Depth of Cut	ap=2mm ae=2mm
Coolant	Water-Soluble
Machine	Vertical Machining Center

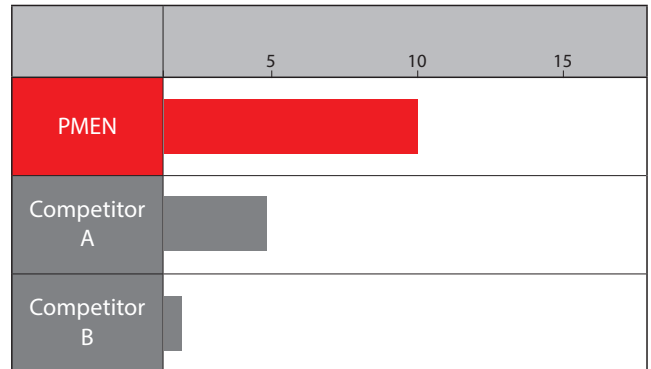


Demonstrates stable tool wear and excellent durability in chamfering that involved different cutting loads between the cutting edges.

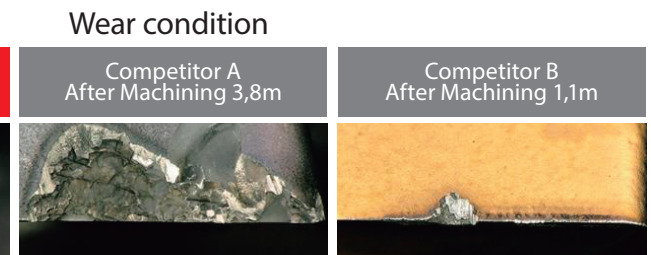
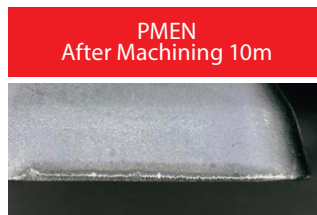
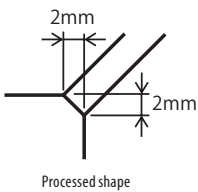


Long tool life in SUS304 C2 chamfering

Tool	PMEN09R008SS20-30-45
Insert Grade	SOMT090308EN-GM(XP2040)
Work Material	SUS304
Cutting Speed	100m/min (1.770min ⁻¹)
Feed	177mm/min (0.1mm/t)
Depth of Cut	ap=2mm ae=2mm
Coolant	Water-Soluble
Machine	Vertical Machining Center

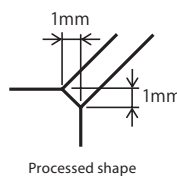


Achieves greater durability versus the competitor tools in SUS304 chamfering.

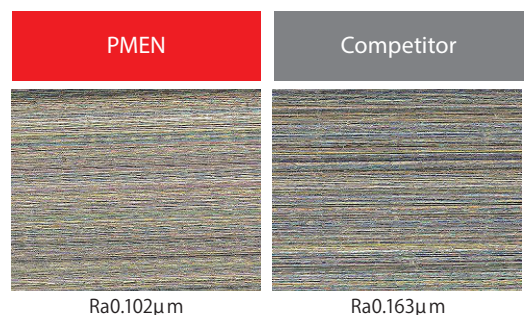


Long tool life in SUS304 C2 chamfering

Tool	PMEN09R008SS20-30-45
Insert Grade	SOMT090308EN-GM(XP2040)
Work Material	SUS304
Cutting Speed	100m/min (1.770min ⁻¹)
Feed	177mm/min (0.1mm/t)
Depth of Cut	ap=1mm ae=1mm
Coolant	Water-Soluble
Machine	Horizontal Machining Center



Machined surface condition



Good machined surface is obtained in SUS304 chamfering.

Centering and Chamfering | Indexables

Cutting conditions



www.osgeurope.com





shaping your dreams

OSG EUROPE LOGISTICS

Avenue Lavoisier 1
B-1300 Z.I. Wavre - Nord - Belgium
Tel: +32 10 23 05 07
info@osgeurope.com

OSG POLAND Sp. z o.o.

Spółdzielcza 57
05-074 Halinów - Poland
Tel: +22 760 82 71
osg@osg-poland.com

OSG ROMANIA SRL

25C, Bucuresti-Magurele Street (Sector 5)
051431 Bucuresti - România
Tel: +40 21 322 07 47
info@osgromania.ro

OSG BELUX

Avenue Lavoisier 1
B-1300 Z.I. Wavre - Nord - Belgium
Tel: +32 10 23 05 11
info@osg-belgium.com

OSG GERMANY

Karl-Ehmann-Str. 25
D - 73037 Göppingen - Germany
Tel: +49 7161 6064 - 0
Fax: +49 7161 6064 - 444
info@osg-germany.de

AUSTRIA

Branch office of OSG GERMANY
Messestraße 11
A-6850 Dornbirn
Tel: +49 7161 6064-0
info@osg-germany.de

OSG FRANCE

Parc Icade, Paris Nord 2
Immeuble "Le Rimbaud"
22 Avenue des Nations
CS66191 - 93420 Villepinte - France
Tel: +33 1 49 90 10 10
sales@osg-france.com

OSG SCANDINAVIA

(For Scandinavian countries)
Langebjergvaenget 16
4000 Roskilde - Denmark
Tel: +45 46 75 65 55
osg@osg-scandinavia.com

OSG ITALIA

Via Ferrero, 65 A/B3
I - 10098 Rivoli - Italy
Tel: +39 0117705211
info@osg-italia.it

OSG NETHERLANDS

Bedrijfsweg 5 - 3481 MG Harmelen
Tel: +31 348 44 2764
info@osg-nl.com

SWEDEN

Branch office of OSG SCANDINAVIA
Singelgatan 7
212 28 Malmö - Sweden
Tel: +46 40 41 22 55
osg@osg-scandinavia.com

Vischer & Bolli AG

Machining and Workholding
Im Schossacher 17
CH-8600 Dübendorf
T +41 44 802 15 15
info@vb-tools.com

OSG UK

Kelsey Close, Attleborough Fields Ind Est,
CV11 6RS, Nuneaton, United Kingdom.
Tel: +44 1827 720 013
uk_sales@osg-uk.com

OSG IBERICA

Bekolarra 4
E - 01010 Vitoria-Gasteiz - Spain
Tel: +34 945 242 400
osg.iberica@osg-ib.com

CZECH, SLOVAKIA, HUNGARY

OSG Europe Logistics S.A.
Slovakia organizacna zlozka
Racianská 22/A, SK-83102 Bratislava
Slovakia
Tel. +421 24 32 91 295
Orders-osgsvk@osgeurope.com

OSG TURKEY

Rami Kışla Cad.No:56 Eyüp
Istanbul 34056 - Turkey
Tel+90 212 565 24 00
Fax: +90 212 565 44 00
info@osg-turkey.com

OSG EUROPE LOGISTICS S.A.

07/2025 - All rights reserved. © OSG Europe 2025.

The contents of this catalogue are provided to you for viewing only. They are not intended for reproduction either in part or in whole in this or other medium. They cannot be copied, used to create derivation work or used for any reason, by means without the express, written permission of the copyright owner. If prices are stated, they are netto unit-prices and any eventual tax(es) have to be added. The company is not responsible for any printing error in technical, price and/or any other data.

Tool specifications subject to change without notice.

www.osgeurope.com

