



Multi-function Cutter Series

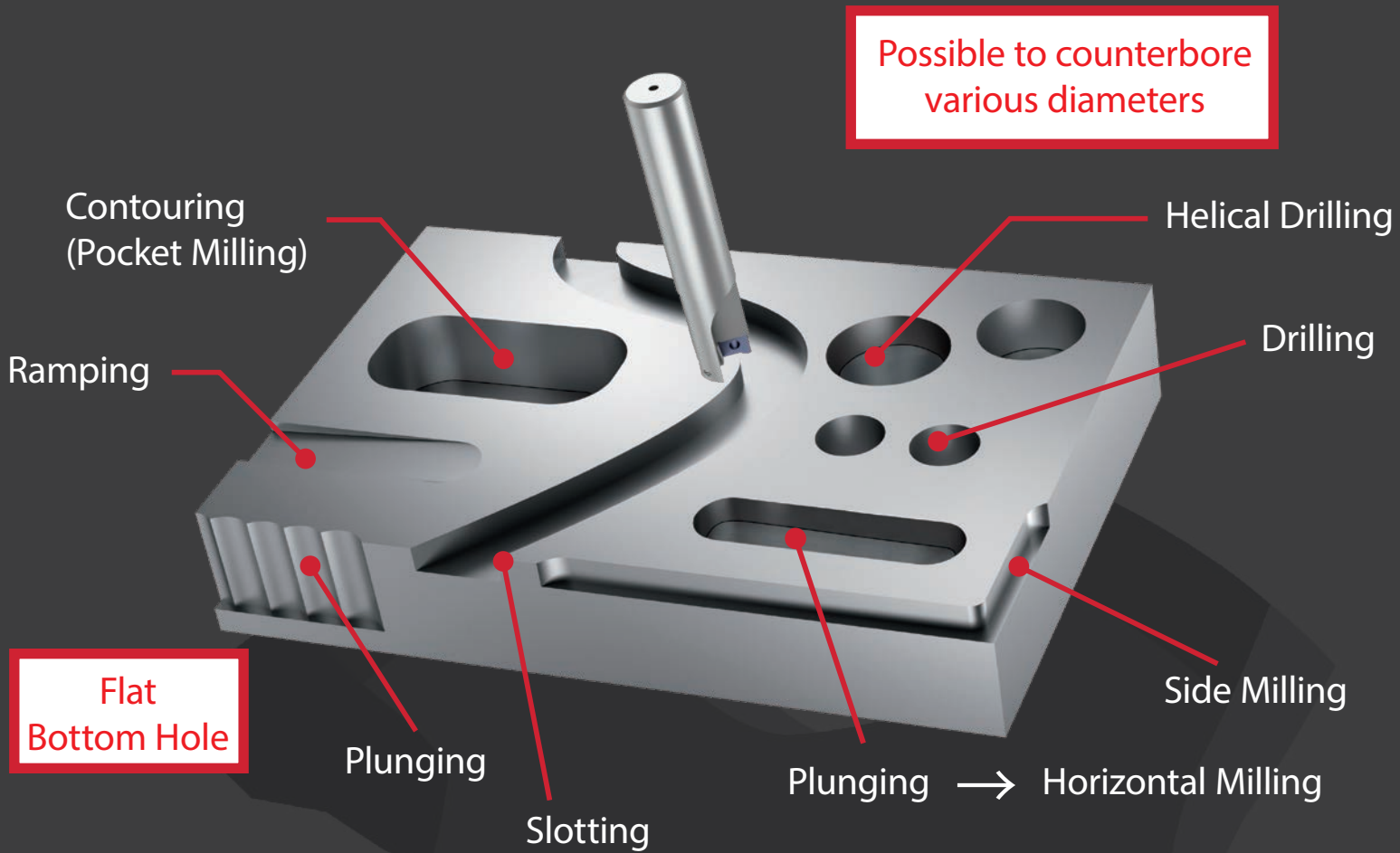
# PMD

Volume 1

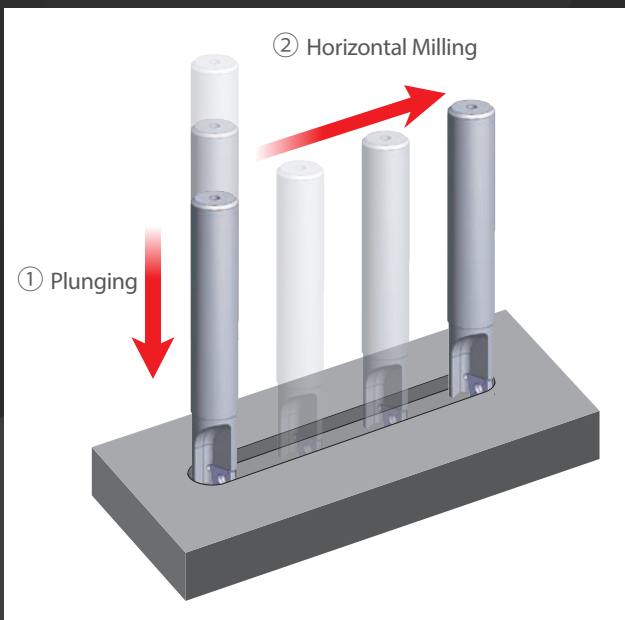


# KEY FEATURES: PHOENIX PMD

Supports a wide range of applications with a single tool



Two types of inserts are used to enable continuous cutting - from plunging to horizontal milling



Inserts for Drilling and Plunging Edge



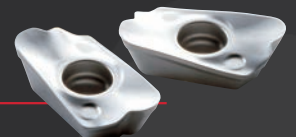
Superior chip breaking capability for stable machining without chip trouble. Uses the same insert as the PZAG counterboring cutter.



Insert for Peripheral Cutting Edge



High rigidity and sharp cutting edge ensure stable long tool life without chattering. Uses the same insert as the PSE shoulder cutter.



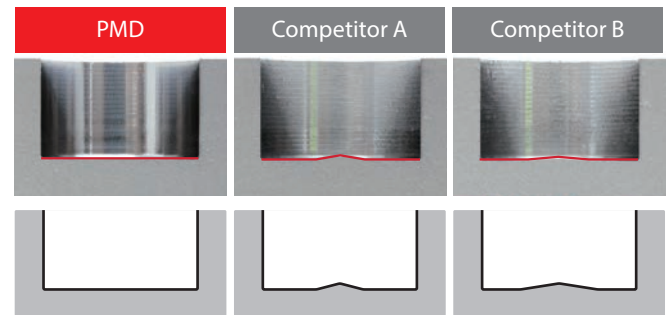
# PROCESSING DATA

Milling | Indexables

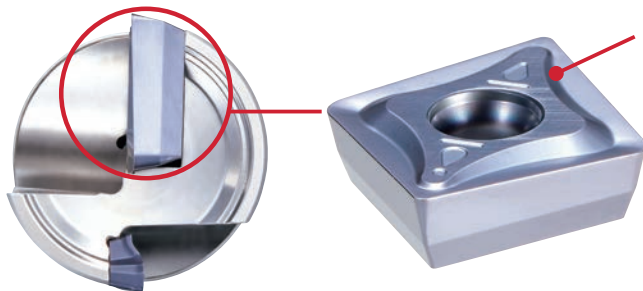
## Flat Bottom Hole

Tool	PMD11R025SS25-1S (Ø25 x 1 flutes)	Competitor A (Ø25 x 2 flutes)	Competitor B (Ø25 x 2 flutes)
Insert Grade	Center Insert: ZPNT130508EN (XP8030) Peripheral Insert: ZDKT11T308SR-GM (XC3030)	-	-
Milling Method	Helical Drilling		
Work Material	S50C		
Cutting Speed	150m/min(1.910 min <sup>-1</sup> )		
Feed	84mm/min (0,2mm/t)	84mm/min (0,1mm/t)	
Depth of Cut	ap=20mm		
Processing angle	2,8° (Helical Pitch)		
Coolant	None (Air Blow)		
Machine	Vertical Machining Center		

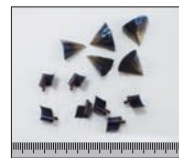
Bottom Hole Shape Comparison



## Superior chip breaking capability during drilling and plunging



Excellent chip breaking capability with the enhanced muscle breaker



Ø25 hole processing  
(non-step drilling)  
Work material: S50C

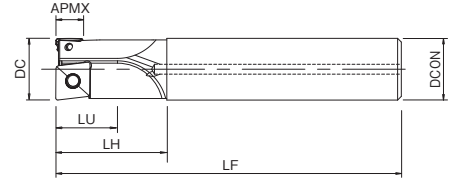
## Insert lineup corresponding to individual application needs

Work Material	Insert Grade for Drilling and Plunging Edge	Insert Grades for Peripheral Cutting Edge	
Steel P	XP8030	WET XP3035	DRY XC3030
Stainless Steel M		XP2040	
Cast Iron K		WET XP3025	DRY XC1015
Non-ferrous N		CK010	
Heat-resistant Alloy S		XC5040	
High Hardness Material H		XP6015	



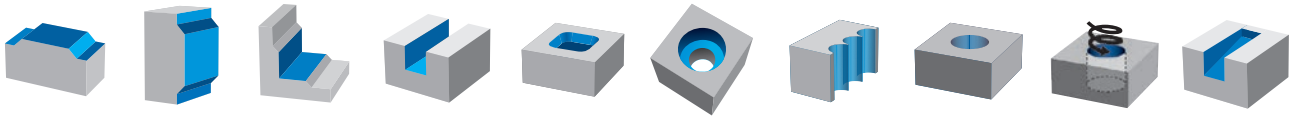
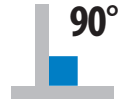
# PMD SS

Milling | Indexables



With coolant hole

- 90° multi-function cutter
- With coolant hole
- Straight Shank Type
- D20 - 32 mm



EDP	Designation	DC	ZEPF	NOF	DCON	LF	LH	LU	APMX	Applicable Inserts		Price
										Center Insert	Peripheral Insert	
7803410	PMD11R020SS20-1S	20	1	2	20	130	35	20	10	① ZPNT100408EN	ZDKT11T308...	
7803413	PMD11R020SS20-1L	20	1	2	20	185	60	20	10	① ZPNT100408EN	ZDKT11T308...	
7803411	PMD11R025SS25-1S	25	1	2	25	140	45	25	10	② ZPNT130508EN	ZDKT11T308...	
7803414	PMD11R025SS25-1L	25	1	2	25	220	75	25	10	② ZPNT130508EN	ZDKT11T308...	
7803412	PMD11R032SS32-1S	32	1	2	32	150	50	28	10	③ ZPNT170608EN	ZDKT11T308...	
7803415	PMD11R032SS32-1L	32	1	2	32	230	90	28	10	③ ZPNT170608EN	ZDKT11T308...	

Milling | Indexables



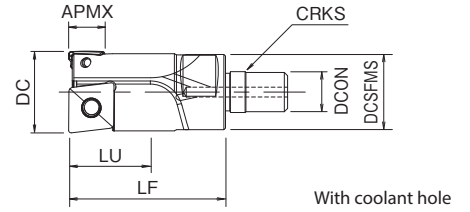
90 degrees

### Accessories & spare parts

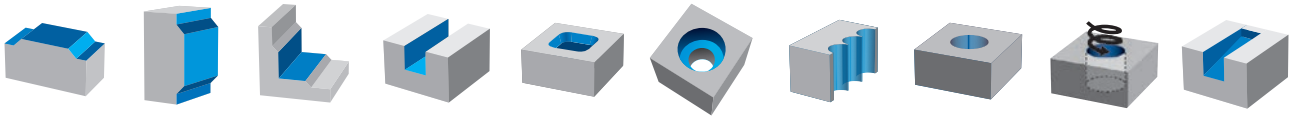
Applicable cutter	Clamping screw		Applicable Inserts	Recommended Tightening Torque	Wrench	
PMD11R020... PMD11R025... PMD11R032...	7808107	FS25656P (Torx 8IP)	- ZDKT11...	1.6 N-m	7808225	8IP-D (Torx 8IP)
PMD11R020...	7808115	FS35686P (Torx 15IP)	① ZPNT10...	3.2 N-m	7808228	15IP-D (Torx 15IP)
PMD11R025...	7808114	FS45510P (Torx 20IP)	② ZPNT13...	5.0 N-m	7808229	20IP-D (Torx 20IP)
PMD11R032...			③ ZPNT17...			

# PMD SF HEADS

Milling | Indexables



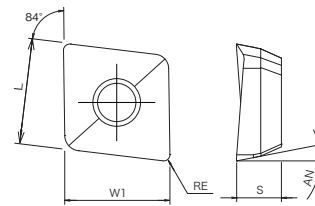
- Multi-function Cutter with Screw Fit Type
- With coolant hole
- For OP-SFA straight shank holder
- D20 - 32 mm



EDP	Designation	DC	ZEFP	NOF	DCON	CRKS	Spanner Size	LF	DN	LU	APMX	DCSFMS	Applicable Inserts		Appl. Shank	Price
													Center Insert	Peripheral Insert		
7803416	PMD11R020SF10-1	20	1	2	10,5	M10	14	48	18	20	10	18	① ZPNT100408EN	ZDKT11T308...	④	
7803417	PMD11R025SF12-1	25	1	2	12,5	M12	17	48	22	25	10	23	② ZPNT130508EN	ZDKT11T308...	⑤	
7803418	PMD11R032SF16-1	32	1	2	17	M16	22	58	27	28	10	28	③ ZPNT170608EN	ZDKT11T308...	⑥	

# PMD INSERTS

Milling | Indexables



▪ Inserts for Drilling and Plunging Edge

	EDP	Designation	No. of Cutting Edge	Insert Size				App. Body	Grade	P		M		K		N		S		H		Price
				L x W1	S	AN	RE			dry	☉	dry	☉	GG	GGG	dry	☉	dry	☉	dry	☉	
①	7814108	ZPNT100408EN	2	10,95x10x95	4,65	11°	0,8	Ø20	XP8030	☉	☉	☉	☉	☉	☉	☉	☉	☉	☉	☉	☉	
②	7814110	ZPNT130508EN	2	13,92x13,92	5,46	11°	0,8	Ø25	XP8030	☉	☉	☉	☉	☉	☉	☉	☉	☉	☉	☉	☉	
③	7814111	ZPNT170608EN	2	17,85x17,85	6,31	11°	0,8	Ø32	XP8030	☉	☉	☉	☉	☉	☉	☉	☉	☉	☉	☉	☉	

Only the inserts listed above are applicable for PMD.

☉ Best ☉ Good

Milling | Indexables



Insert

## PZAG

Inserts for the drilling and plunging edge are also applicable to the PZAG counterboring cutter (excluding ZPNT100408).

PZAG is recommended for those seeking even greater counterboring efficiency.

※ For PMD, only corner R (RE) size 0.8 can be used.

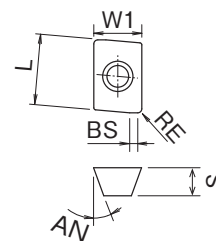


PZAG

Please refer to the Chamfering and Counterboring Catalog for details of PZAG.

# PMD INSERTS

Milling | Indexables



- Inserts for Peripheral Cutting Edge

EDP	Designation	No. of Cutting Edge	Insert Size					Grade	P		M		K		N		S		H		Price
			L x W1	S	AN	RE	BS		dry	⊕	dry	⊕	GG	GGG	dry	⊕	dry	⊕	dry	⊕	
7811023	ZDKT11T308FR-NM	2	11x6,8	3,8	15°	0,8	1,4	CK010								⊕					
7827026	ZDKT11T308SR-GL	2	11x6,8	3,8	15°	0,8	1,4	XC3020	⊕				⊕	⊕							
7827032	ZDKT11T308SR-GM	2	11x6,8	3,8	15°	0,8	1,4	XC3020	⊕				⊕	⊕							
7827033	ZDKT11T308SR-GR	2	11x6,8	3,8	15°	0,8	1,4	XC3020	⊕				⊕	⊕							
7828026	ZDKT11T308SR-GL	2	11x6,8	3,8	15°	0,8	1,4	XP3025		⊕			⊕	⊕							
7828032	ZDKT11T308SR-GM	2	11x6,8	3,8	15°	0,8	1,4	XP3025		⊕			⊕	⊕							
7828033	ZDKT11T308SR-GR	2	11x6,8	3,8	15°	0,8	1,4	XP3025		⊕			⊕	⊕							
7825026	ZDKT11T308SR-GL	2	11x6,8	3,8	15°	0,8	1,4	XC3030	⊕				⊕	⊕							
7825032	ZDKT11T308SR-GM	2	11x6,8	3,8	15°	0,8	1,4	XC3030	⊕				⊕	⊕							
7825033	ZDKT11T308SR-GR	2	11x6,8	3,8	15°	0,8	1,4	XC3030	⊕				⊕	⊕							
7814026	ZDKT11T308SR-GL	2	11x6,8	3,8	15°	0,8	1,4	XP3035	⊕	⊕	⊕	⊕	⊕	⊕							
7814032	ZDKT11T308SR-GM	2	11x6,8	3,8	15°	0,8	1,4	XP3035	⊕	⊕	⊕	⊕	⊕	⊕							
7814033	ZDKT11T308SR-GR	2	11x6,8	3,8	15°	0,8	1,4	XP3035	⊕	⊕	⊕	⊕	⊕	⊕							
7826026	ZDKT11T308SR-GL	2	11x6,8	3,8	15°	0,8	1,4	XP2025		⊕			⊕					⊕			
7826032	ZDKT11T308SR-GM	2	11x6,8	3,8	15°	0,8	1,4	XP2025		⊕			⊕					⊕			
7813026	ZDKT11T308SR-GL	2	11x6,8	3,8	15°	0,8	1,4	XP2040	⊕	⊕	⊕	⊕	⊕				⊕		⊕		
7813032	ZDKT11T308SR-GM	2	11x6,8	3,8	15°	0,8	1,4	XP2040	⊕	⊕	⊕	⊕	⊕				⊕		⊕		
7813033	ZDKT11T308SR-GR	2	11x6,8	3,8	15°	0,8	1,4	XP2040	⊕	⊕	⊕	⊕	⊕				⊕		⊕		
7812033	ZDKT11T308SR-GR	2	11x6,8	3,8	15°	0,8	1,4	XC1015					⊕	⊕				⊕		⊕	
7815031	ZDKT11T308ER-SM	2	11x6,8	3,8	15°	0,8	1,4	XC5035			⊕	⊕						⊕			
7816031	ZDKT11T308ER-SM	2	11x6,8	3,8	15°	0,8	1,4	XC5040			⊕	⊕						⊕			
7824035	ZDKT11T308SR-HR	2	11x6,8	3,8	15°	0,8	1,4	XP6015	⊕				⊕	⊕						⊕	

Only the inserts listed above are applicable for PMD.

⊕ Best ⊙ Good

## PSE

Inserts for the peripheral cutting edge are applicable for the PSE shoulder milling cutter.

A wide variety of shoulder cutters that can be used for various milling operations.

※ For PMD, only corner R (RE) size 0.8 can be used.

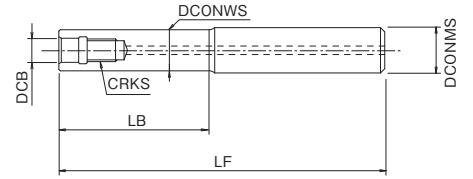


PSE  
OSG PHOENIX

Please refer to the OSG PHOENIX Catalog for details of PSE.

# OP-SFA

Milling | Indexables



- Straight Shank Holder for Screw Fit Type
- Steel Shank

	EDP	Designation	DCONMS	DCONWS	CRKS	DCB	LB	LF	Price
④	7801901	SF-M10SS20-20	20	18	M10	10,5	17,7	120	
⑤	7801902	SF-M12SS25-35	25	23	M12	12,5	32,7	135	
⑥	7801903	SF-M16SS32-35	32	28	M16	17	32,1	155	



- Straight Shank Holder for Screw Fit Type
- All Carbide Shank

	EDP	Designation	DCONMS	DCONWS	CRKS	DCB	LB	LF	Price
④	7801912	SF-M10SS20-70CS	20	18	M10	10,5	67,7	140	
④	7801913	SF-M10SS20-110CS	20	18	M10	10,5	107,7	180	
⑤	7801914	SF-M12SS25-90CS	25	23	M12	12,5	87,7	170	
⑤	7801915	SF-M12SS25-140CS	25	23	M12	12,5	137,7	220	
⑥	7801916	SF-M16SS32-120CS	32	28	M16	17	117,1	220	
⑥	7801917	SF-M16SS32-190CS	32	28	M16	17	187,1	290	

Milling | Indexables





# CUTTING CONDITIONS

Milling | Indexables

## Side Milling - Slot Milling

For horizontal milling, calculate by per tooth.

	Work Material	Tensile Strength / Hardness	Side Milling ap: 10mm ae:0,2D		Slot Milling ap: 3mm ae:1,0D	
			Cutting Speed Vc (m/min)	Feed per tooth fz (mm/t)	Cutting Speed Vc (m/min)	Feed per tooth fz (mm/t)
P	Mild Steel-Carbon Steel (S5400-S10C)	~180HB	180 (100~250)	0,25 (0,2~0,5)	180 (100~250)	0,12(0,05~0,2)
	Carbon Steel-Alloy Steel (S50C-SCM440)	~280HB	180 (100~250)	0,2(0,15~0,4)	180 (100~250)	0,11(0,05~0,2)
	Die Steel (SKD11-SKD61)	~280HB	150 (80~200)	0,2(0,15~0,4)	150 (80~200)	0,1(0,05~0,18)
M	Stainless Steel (Dry) (SUS304-SUS420)	~250HB	150 (80~200)	0,18(0,15~0,4)	150 (80~200)	0,1(0,05~0,18)
	Stainless Steel (Wet) (SUS304,SUS420)	~250HB	80 (60~120)	0,18(0,15~0,4)	80 (60~120)	0,1(0,05~0,18)
K	Cast Iron (FC250)	~350N/mm <sup>2</sup>	180 (100~300)	0,25(0,15~0,5)	180 (100~300)	0,12(0,05~0,2)
	Ductile Cast Iron (FCD400)	~800N/mm <sup>2</sup>	180 (100~250)	0,15(0,1~0,4)	180 (100~250)	0,12(0,05~0,2)
N	Aluminium Alloy	~13%Si	300 (200~1.500)	0,3(0,2~0,5)	300 (200~1.500)	0,15(0,1~0,25)
S	Superalloy (Wet) (Inconel®718)	-	35 (25~60)	0,15 (0,1~0,3)	35 (25~60)	0,1(0,05~0,15)
	Titanium Alloy (Wet) (Ti-6Al-4V)	-	40 (30~120)	0,18(0,1~0,35)	40 (30~120)	0,1(0,08~0,25)
H	Pre-hardened Steel (NAK80)	40~43HRC	100 (40~150)	0,18(0,1~0,3)	90 (40~150)	0,1(0,08~0,2)
	Steel for Die Casting (DAC-MAGIC, DH31)	43~48HRC	80 (40~120)	0,12(0,08~0,2)	70 (40~120)	0,08(0,06~0,15)
	Hardened Steel (SKD11)	50~55HRC	60 (40~90)	0,1(0,05~0,2)	50 (40~90)	0,06(0,05~0,1)

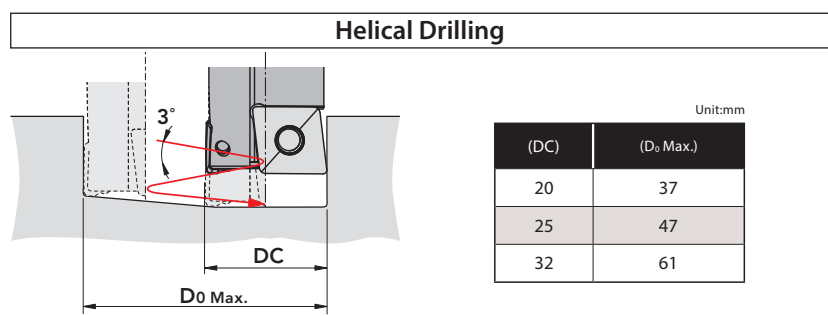
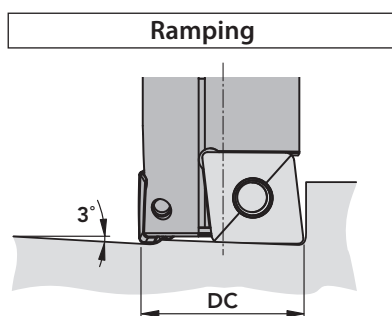
## Drilling

For both counterboring and plunge milling

	Work Material	Tensile Strength / Hardness	Cutting Speed Vc (m/min)	Feed Rate f (mm/rev)		
				Ø20	Ø25	Ø32
P	Mild Steel-Carbon Steel (S5400-S10C)	~180HB	160(100~200)	0,07(0,05~0,08)	0,08(0,06~0,1)	0,1(0,08~0,12)
	Carbon Steel-Alloy Steel (S50C-SCM440)	~280HB	150(100~200)	0,07(0,05~0,08)	0,08(0,06~0,1)	0,1(0,08~0,12)
	Die Steel (SKD11-SKD61)	~280HB	120(80~180)	0,07(0,05~0,08)	0,08(0,06~0,1)	0,1(0,08~0,12)
M	Stainless Steel (Dry) (SUS304-SUS420)	~250HB	130(80~180)	0,07(0,05~0,08)	0,08(0,06~0,1)	0,1(0,08~0,12)
K	Cast Iron (FC250)	~350N/mm <sup>2</sup>	200(150~180)	0,07(0,05~0,08)	0,08(0,06~0,1)	0,1(0,08~0,12)
	Ductile Cast Iron (FCD400)	~800N/mm <sup>2</sup>	160(100~220)	0,07(0,05~0,08)	0,08(0,06~0,1)	0,1(0,08~0,12)
N	Aluminium Alloy	~13%Si	200(100~800)	0,07(0,05~0,08)	0,08(0,06~0,1)	0,1(0,08~0,12)
S	Superalloy (Wet) (Inconel®718)	-	50(30~60)	0,07(0,05~0,08)	0,08(0,06~0,1)	0,1(0,08~0,12)
	Titanium Alloy (Wet) (Ti-6Al-4V)	-	60(30~100)	0,07(0,05~0,08)	0,08(0,06~0,1)	0,1(0,08~0,12)
H	Pre-hardened Steel (NAK80)	40~43HRC	100(60~120)	0,07(0,05~0,08)	0,08(0,06~0,1)	0,1(0,08~0,12)
	Steel for Die Casting (DAC-MAGIC, DH31)	43~48HRC	80(40~100)	0,07(0,05~0,08)	0,08(0,06~0,1)	0,1(0,08~0,12)
	Hardened Steel (SKD11)	50~55HRC	60(40~80)	0,07(0,05~0,08)	0,08(0,06~0,1)	0,1(0,08~0,12)

- \* Above recommended speed is for short shank type.  
For long shank type, use the following cutting condition: cutting speed = 80% of the above settings.
- The indicated speeds and feeds are for milling with water-soluble coolant.
  - The above cutting conditions are to be used as general guidelines. Adjustments may be necessary depending on actual cutting condition.
  - Inserts should be attached to the holder tightly in a very neat condition.
  - Fasten the work material to reduce the possibility of work deformation, deflection of machined surface, or vibration.

Set the maximum processing angle during ramping and helical drilling operations to less than 3°.



Unit:mm	
(DC)	(D0 Max.)
20	37
25	47
32	61

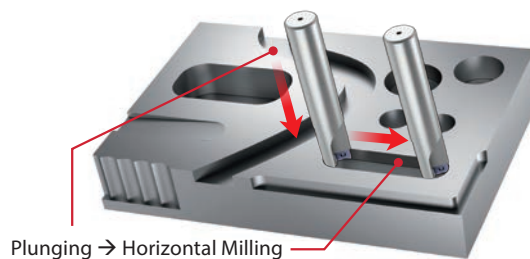
# CUTTING DATA

Milling | Indexables

## Plunging → Horizontal Milling

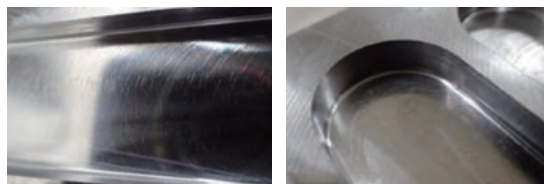
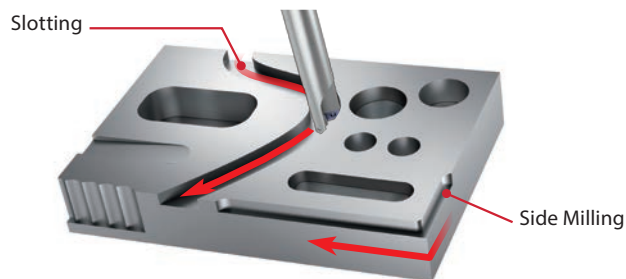
Tool	PMD11R025SS25-1S (Ø25 x 1 flute)	
Insert Grade	Center Insert: ZPNT130508EN (XP8030) Peripheral Insert: ZDKT11T308SR-GM (XC3030)	
Milling Method	Plunging	Horizontal Milling
Work Material	S50C	
Cutting Speed	100m/min (1.274min <sup>-1</sup> )	
Feed	102mm/min (0.08mm/rev)	204mm/min (0.16mm/t)
Depth of Cut	a <sub>p</sub> =7mm a <sub>e</sub> =25mm	
Coolant	None (Air Blow)	
Machine	Vertical Machining Center (BT40)	

Excellent milling surface finish without chattering.



## Slotting ■ Side Milling

Tool	PMD11R025SS25-1S (Ø25 x 1 flute)	
Insert Grade	Center Insert: ZPNT130508EN (XP8030) Peripheral Insert: ZDKT11T308SR-GM (XC3030)	
Milling Method	Slotting	Side Milling
Work Material	S50C	
Cutting Speed	150m/min (1.910min <sup>-1</sup> )	
Feed	382mm/min (0.2mm/t)	
Depth of Cut	a <sub>p</sub> =7mm a <sub>e</sub> =25mm	a <sub>p</sub> =10mm a <sub>e</sub> =2,5mm
Coolant	None (Air Blow)	
Machine	Vertical Machining Center (BT40)	



## Helical Drilling ■ Ramping

Tool	PMD11R025SS25-1S (Ø25 x 1 flute)	
Insert Grade	Center Insert: ZPNT130508EN (XP8030) Peripheral Insert: ZDKT11T308SR-GM (XC3030)	
Milling Method	Helical Drilling	Ramping
Processing Angle	Helical Pitch 2,5°	3°
Work Material	S50C	
Cutting Speed	150m/min (1.910min <sup>-1</sup> )	
Feed	107mm/min (0.15mm/t)	287mm/min (0.15mm/t)
Depth of Cut	a <sub>p</sub> =25mm	a <sub>p</sub> =7mm
Coolant	None (Air Blow)	
Machine	Vertical Machining Center (BT40)	

No burrs at the hole entry and no leftover material in the center of hole after processing.

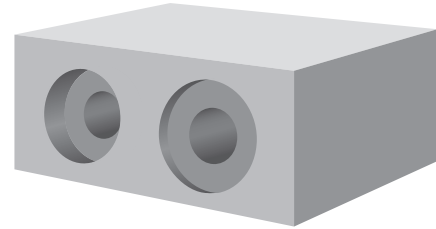


# PROCESSING DATA

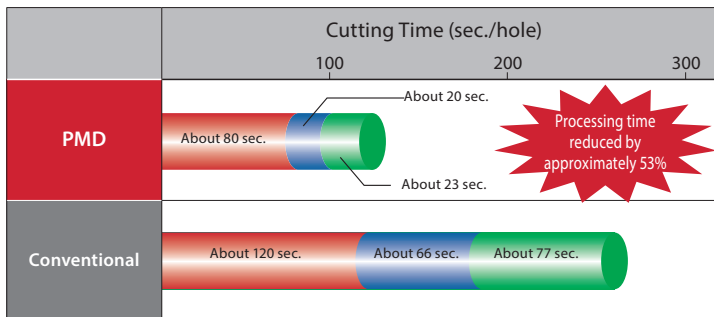
Milling | Indexables

## Processing time reduction by continuous operation from drilling to contouring

Tool	<b>PMD11R025SS25-1S</b> (Ø25 x 1 flute)	Conventional carbide end mill (Ø20x 4 flutes)
Insert Grade	Center Insert: ZPNT130508EN (XP8030) Peripheral Insert: ZDKT11T308-GM (XP3035)	-
Work Material	FCV410	
Coolant	Non-Water-Soluble (Internal)	
Machine	Horizontal Machining Center	



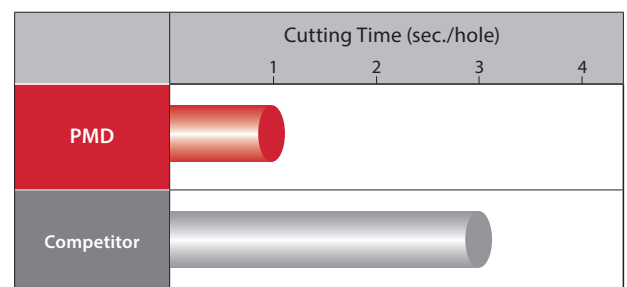
Counterboring Ø	Ø 31,8			Ø 34,8			Ø 40,8		
Processing Shape									
Tool	<b>PMD (Ø25 x 1 flute)</b>		Conventional (Ø20x 4 flutes)	<b>PMD (Ø25 x 1 flute)</b>		Conventional (Ø20x 4 flutes)	<b>PMD (Ø25 x 1 flute)</b>		Conventional (Ø20x 4 flutes)
Milling Method	Drilling	Contouring	Helical Drilling	Drilling	Contouring	Helical Drilling	Drilling	Contouring	Helical Drilling
Depth of Cut	15mm	ap=5mm ae=3,4mm	5mm Helical Pitch	2mm	ap=2mm ae=4,9mm	2mm Helical Pitch	2mm	ap=2mm ae=7,9mm	2mm Helical Pitch
Cutting Speed	157m/min (2.000min <sup>-1</sup> )		63m/min (1.000min <sup>-1</sup> )	157m/min (2.000min <sup>-1</sup> )		63m/min (1.000min <sup>-1</sup> )	157m/min (2.000min <sup>-1</sup> )		63m/min (1.000min <sup>-1</sup> )
Feed	350mm/min (0,175mm/rev)	75mm/min (0,175mm/t)	74mm/min (0,05mm/t)	500mm/min (0,25mm/rev)	141mm/min (0,25mm/t)	85mm/min (0,05mm/t)	500mm/min (0,25mm/rev)	194mm/min (0,25mm/t)	102mm/min (0,05mm/t)
Actual Processing time (calculated Value)	About 80 sec.		About 120 sec.	About 20 sec.		About 66 sec.	About 23 sec.		About 77 sec.



Processing time is reduced as the PMD is capable of drilling a hole and enlarging it by contouring.

## High-efficiency counterboring of the casted surface is made possible

Tool	<b>PMD11R025SS25-1S</b> (Ø25 x 1 flute)	Competitor (Ø25 x 2 flutes)
Insert Grade	Center Insert: ZPNT130508EN (XP8030) Peripheral Insert: ZDKT11T308-SR (XC1015)	-
Work Material	FC250	
Cutting Speed	150m/min (1.909min <sup>-1</sup> )	78m/min (1.000min <sup>-1</sup> )
Feed	286mm/min (0,15mm/rev)	100mm/min (0,1mm/rev)
Counterboring Ø	Ø25	
Depth of Cut	5mm	
Coolant	None (Air Blow)	
Machine	Horizontal Machining Center (BT50)	



The PMD is able to achieve excellent milling surface finish and reduce processing time even on unstable rough casted surface.



shaping your dreams

**OSG EUROPE LOGISTICS**

Avenue Lavoisier 1  
B-1300 Z.I. Wavre - Nord - Belgium  
Tel: +32 10 23 05 07  
Fax: +32 10 23 05 51  
info@osgeurope.com

**OSG BELUX**

Avenue Lavoisier 1  
B-1300 Z.I. Wavre - Nord - Belgium  
Tel: +32 10 23 05 11  
Fax: +32 10 23 05 31  
info@osg-belgium.com

**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  
Fax: +33 1 49 90 10 15  
sales@osg-france.com

**OSG NETHERLANDS**

Bedrijfsweg 5 - 3481 MG Harmelen  
Tel: +31 348 44 2764  
Fax: +31 348 44 2144  
info@osg-nl.com

**OSG UK**

Shelton house, 5 Bentalls  
Pipps Hill Ind Est, Basildon Essex SS14 3BY  
Tel: +44 1268 567 660  
Fax: +44 1268 567 661  
sales@osg-uk.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 POLAND Sp. z.o.o.**

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

**OSG SCANDINAVIA**

(For Scandinavian countries)  
Langebjergvaenget 16  
4000 Roskilde - Denmark  
Tel: +45 46 75 65 55  
Fax: +45 46 75 67 00  
osg@osg-scandinavia.com

**SWEDEN**

Branch office of OSG SCANDINAVIA  
Abrahams Gränd 8  
295 35 Bromölla - Sweden  
Tel: +46 40 41 22 55  
Fax: +46 40 41 32 55  
osg@osg-scandinavia.com

**OSG IBERICA**

Bekolarra 4  
E - 01010 Vitoria-Gasteiz - Spain  
Tel: +34 945 242 400  
Fax: +34 945 228 883  
osg.iberica@osg-ib.com

**RUSSIA**

Butlerova street, 17B, office 5069  
117342 Moscow - Russia  
Tel: +7 (495) 150 41 54  
info@osg-russia.com

**OSG TURKEY**

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

**ROMSAN INTERNATIONAL CO. SRL**

Reprezentant Exclusiv OSG  
25C, Bucuresti-Magurele Street  
051431 Bucuresti - România  
Tel: +40 21 322 07 47  
Fax: +40 21 321 56 00  
romsan.int@romsan.ro

**AUSTRIA**

Branch office of OSG GERMANY  
Messestraße 11  
A-6850 Dornbirn  
Tel: +49 7161 6064-0  
Fax: +49 7161 6064-444  
info@osg-germany.de

**OSG ITALIA**

Via Ferrero, 65 A/B  
I - 10098 Rivoli - Italy  
Tel: +39 0117705211  
Fax: +39 0117705215  
info@osg-italia.it

**Vischer & Bolli AG**

Machining and Workholding  
Im Schossacher 17  
CH-8600 Dübendorf  
T +41 44 802 15 15  
F +41 44 802 15 95  
info@vb-tools.com

**OSG EUROPE LOGISTICS S.A.**

09/2020 - All rights reserved. © OSG Europe 2020.

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](http://www.osgeurope.com)

