

Z²



ORIGIN



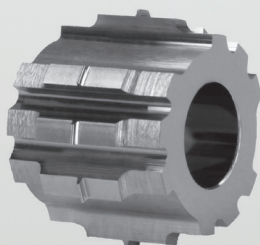
REVOLUTION



E₂F



Hob cutters for gears



TRINITY

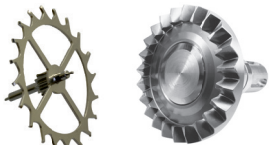


8100



8700

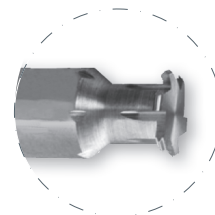
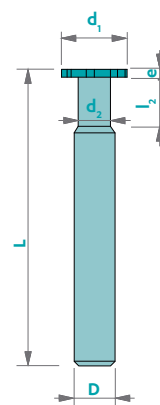
Hob cutters for gears

Type	Name of tool	Standard modules*	Tool	Tool Machined part	Page
Tooth by tooth gear cutter	Z²	m 0.03 - 1.00			3
Hobs for epicyclic & involute teeth	ORIGIN	m 0.015 - 1.000			4
		m 0.015 - 0.800			5
Hobs for asymmetrical gears and special profiles	REVOLUTION	by profile			6
Hobs for frontal gear cutting	E₂F	m 0.05 - 0.50			7
Hobs for conical gears	TRINITY	m 0.05 - 0.30			8
Hob cutter for involute gears ISO53 / DIN867 DIN quality AAAA	8100	m 0.05 - 1.00			9
Power skiving cutter for internal gear teeth	8700	m 0.05 - 1.00			10

*Depends on the gearing norm
Other modules upon request

Tooth by tooth gear cutter

Material	Vc uncoated	Vc coated	Uncoated	Coated	Rec. Coating *
Steel 20AP	70	90	■	■	TRIO (PO)
Steel Law 100X	70	90	■	■	TRIO (PO)
Finemac	50	60	■	■	TRIO (PO)
4C27A	60	70	■	■	TRIO (PO)
CK45	80	90	■	■	TRIO (PO)
316L	60	70	■	■	TRIO (PO)
Other stainless steel	60	70	■	■	TRIO (PO)
Leaded brass	150	170	■	-	SOLO (DA)
Lead-free brass	150	170	■	■	SOLO (DA)
CuBe	100	120	■	■	SOLO (DA)
Maillechort	120	140	■	■	SOLO (DA)
Bronze	120	140	■	■	SOLO (DA)
Aluminium	200	220	■	■	SOLO (DA)
Titanium	80	90	■	-	-

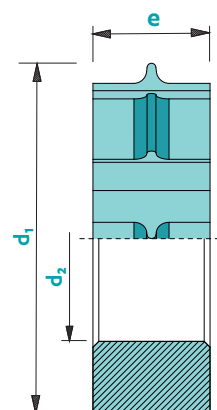


Tolerances D : h5

Standard modules: 0.030 - 1.000. Other modules upon request

d ₁	e	d ₂	l ₂	D	L	Z
<2	0.3 - 1.0	1.0	1	3	38	2 - 3
2	0.3 - 1.0	1.0	1	3	38	2 - 3
3	0.3 - 1.0	2.0	2	3	38	3
4	0.3 - 1.5	2.5	2	4	38	5
5	0.3 - 1.5	3.5	2	5	38	6
6	0.3 - 1.5	3.5	2	6	38	6
7	0.3 - 1.5	3.5	2	7	38	6
8	0.5 - 2.0	4.0	3	8	51	6
10	0.5 - 3.0	5.0	4	10	51	6
12	0.5 - 3.0	6.0	4	12	61	8
15	2.0 - 5.0	8.0	4	10	61	8
20	2.0 - 5.0	8.0	4	10	61	12
25	2.0 - 5.0	8.0	4	10	61	12

Option : circular saw



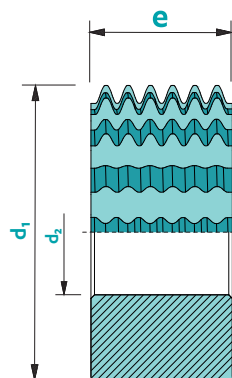
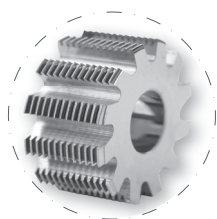
Available
uncoated or coated



Z
2-12

CARB

Hobs for epicyclic & involute teeth



Material	Vc uncoated	Vc coated	Uncoated	Coated	Rec. Coating *
Steel 20AP	70	90	■	□	TRIO (PO)
Steel Law 100X	70	90	■	□	TRIO (PO)
Finemac	50	60	■	■	TRIO (PO)
4C27A	60	70	■	■	TRIO (PO)
CK45	80	90	■	■	TRIO (PO)
316L	60	70	■	■	TRIO (PO)
Other stainless steel	60	70	■	■	TRIO (PO)
Leaded brass	150	170	■	-	SOLO (DA)
Lead-free brass	150	170	■	□	SOLO (DA)
CuBe	100	120	■	□	SOLO (DA)
Maillechort	120	140	■	□	SOLO (DA)
Bronze	120	140	■	□	SOLO (DA)
Aluminium	200	220	■	-	SOLO (DA)
Titanium	80	90	■	-	-

Tolerances d_2 : H3 e : +0/-0.01

Standard modules: 0.015 - 1.000. Other modules upon request

Available uncoated or coated	
	Z 12-15
λ 0°	γ 0°
CARB	

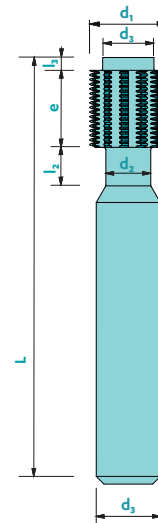
d_1	e	d_2	Z	d_1	e	d_2	Z
6	4	3.5	12	12	6	6.0	15
6	5	3.5	12	12	8	6.0	15
6	6	3.5	12	16	4	8.0	15
8	4	3.5	12 / 15	16	6	8.0	15
8	5	3.5	12 / 15	16	8	8.0	15
8	6	3.5	12 / 15	16	10	8.0	15
8	6	4.5	12 / 15	16	12	8.0	15
8	8	4.5	12 / 15	18	6	6.0	15
10	4	3.5	12 / 15	18	6	8.0	15
10	4	4.0	12 / 15	18	8	8.0	15
10	4	4.5	12 / 15	18	10	8.0	15
10	5	3.5	12 / 15	18	12	8.0	15
10	6	3.5	12 / 15	24	4	8.0	15
10	5	4.5	12 / 15	24	5	8.0	15
10	6	4.5	12 / 15	24	6	8.0	15
12	6	3.5	15	24	8	8.0	15
12	5	4.5	15	24	10	8.0	15
12	6	4.5	15	24	12	8.0	15
12	8	4.5	15	24	15	8.0	15
12	10	4.5	15	32	15	13.0	15
12	6	5.0	15				
12	8	5.0	15				

Gear cutting hob on a shank

ORIGIN

Material	Vc uncoated	Vc coated	Uncoated	Coated	Rec. Coating *
Steel 20AP	70	90	■	□	TRIO (PO)
Steel Law 100X	70	90	■	□	TRIO (PO)
Finemac	50	60	■	■	TRIO (PO)
4C27A	60	70	■	■	TRIO (PO)
CK45	80	90	■	■	TRIO (PO)
316L	60	70	■	■	TRIO (PO)
Other stainless steel	60	70	■	■	TRIO (PO)
Leaded brass	150	170	■	-	SOLO (DA)
Lead-free brass	150	170	■	□	SOLO (DA)
CuBe	100	120	■	□	SOLO (DA)
Maillechort	120	140	■	□	SOLO (DA)
Bronze	120	140	■	□	SOLO (DA)
Aluminium	200	220	■	-	SOLO (DA)
Titanium	80	90	■	-	-

Tolerances D : H5



Standard modules: 0.015 - 0.800. Other modules upon request

d_1	e	d_2	l_2	D	L	Z	d_3	l_3
3.0	4	2.0	2	6	45	8	2.0	1
3.5	4	2.5	2	6	45	8	2.5	1
4.0	5	3.0	3	6	45	8	3.0	1
5.0	6	3.5	3	6	45	10	3.5	1
6.0	6	4.0	3	6	45	12	4.0	1
8.0	6	-	-	6	45	12	5.0	1
10.0	8	-	-	6	45	15	6.0	1
12.0	8	-	-	6	45	15	8.0	1
16.0	8	-	-	10	51	15	10.0	2
20.0	8	-	-	10	51	15	12.0	2

Available uncoated or coated



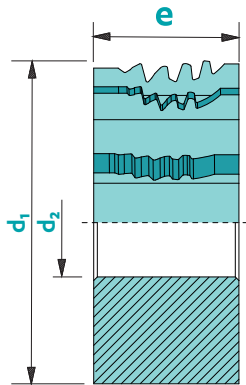
Z
8-15

λ
0°

γ
0°

CARB

Hobs for asymmetrical gears



Material	Vc uncoated	Vc coated	Uncoated	Coated	Rec. Coating *
Steel 20AP	70	90	■	□	TRIO (PO)
Steel Law 100X	70	90	■	□	TRIO (PO)
Finemac	50	60	■	■	TRIO (PO)
4C27A	60	70	■	■	TRIO (PO)
CK45	80	90	■	■	TRIO (PO)
316L	60	70	■	■	TRIO (PO)
Other stainless steel	60	70	■	■	TRIO (PO)
Leaded brass	150	170	■	-	SOLO (DA)
Lead-free brass	150	170	■	□	SOLO (DA)
CuBe	100	120	■	□	SOLO (DA)
Maillechort	120	140	■	□	SOLO (DA)
Bronze	120	140	■	□	SOLO (DA)
Aluminium	200	220	■	-	SOLO (DA)
Titanium	80	90	■	-	-

Tolerances d₂: H3 e: +0/-0.01

Available
uncoated or coated

λ
0°

γ
0°

CARB

Z: by profile

Standard modules: by profile

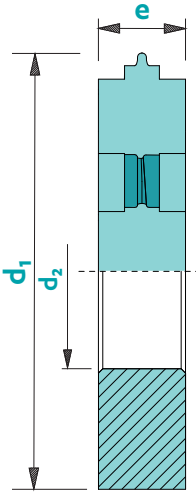
d ₁	e	d ₂
6	4	3.5
6	5	3.5
6	6	3.5
8	4	3.5
8	5	3.5
8	6	3.5
10	4	3.5
10	5	3.5
10	6	3.5
10	5	4.5
10	6	4.5
12	6	4.5
12	8	4.5
12	6	5.0
12	8	5.0
12	6	6.0
12	8	6.0
16	6	8.0
16	8	8.0
16	10	8.0
18	6	6.0
18	6	8.0
18	8	8.0
24	6	8.0
24	8	8.0

Hobs for frontal gear cutting

E₂F

Material	Vc uncoated	Vc coated	Uncoated	Coated	Rec. Coating *
Steel 20AP	70	90	■	□	TRIO (PO)
Steel Law 100X	70	90	■	□	TRIO (PO)
Finemac	50	60	■	■	TRIO (PO)
4C27A	60	70	■	■	TRIO (PO)
CK45	80	90	■	■	TRIO (PO)
316L	60	70	■	■	TRIO (PO)
Other stainless steel	60	70	■	■	TRIO (PO)
Leaded brass	150	170	■	-	SOLO (DA)
Lead-free brass	150	170	■	□	SOLO (DA)
CuBe	100	120	■	□	SOLO (DA)
Maillechort	120	140	■	□	SOLO (DA)
Bronze	120	140	■	□	SOLO (DA)
Aluminium	200	220	■	-	SOLO (DA)
Titanium	80	90	■	-	-

Tolerances d_1 : H3 e : +0/-0.01



Standard modules: 0.030 - 0.500. Other modules upon request

d_1	e	d_2	Z
6	2	3.5	2-5
8	2	3.5	2-5
10	2	3.5	2-5
10	2	4.5	2-5
12	2	4.5	2-5
12	2	5.0	2-5
12	2	6.0	2-5
16	2	8.0	2-5
18	2	6.0	2-5
18	2	8.0	2-5
24	2	8.0	2-5

Available
uncoated or coated

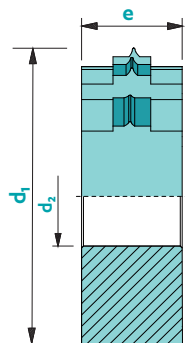
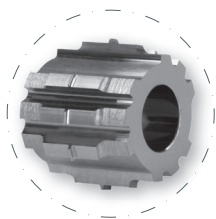


Z2-5

λ
0°

γ
0°

CARB



Material	Vc uncoated	Vc coated	Uncoated	Coated	Rec. Coating *
Steel 20AP	70	90	■	□	TRIO (PO)
Steel Law 100X	70	90	■	□	TRIO (PO)
Finemac	50	60	■	■	TRIO (PO)
4C27A	60	70	■	■	TRIO (PO)
CK45	80	90	■	■	TRIO (PO)
316L	60	70	■	■	TRIO (PO)
Other stainless steel	60	70	■	■	TRIO (PO)
Leaded brass	150	170	■	-	SOLO (DA)
Lead-free brass	150	170	■	□	SOLO (DA)
CuBe	100	120	■	□	SOLO (DA)
Maillechort	120	140	■	□	SOLO (DA)
Bronze	120	140	■	□	SOLO (DA)
Aluminium	200	220	■	-	SOLO (DA)
Titanium	80	90	■	-	-

Tolerances d_2 : H3 e : +0/-0.01

Standard modules: 0.030 - 0.500. Other modules upon request

d_1	e	d_2
6	4	3.5
6	5	3.5
6	6	3.5
8	4	3.5
8	5	3.5
8	6	3.5
10	4	3.5
10	5	3.5
10	6	3.5
10	5	4.5
10	6	4.5
12	6	4.5
12	8	4.5
12	6	5.0
12	8	5.0
12	6	6.0
12	8	6.0
16	6	8.0
16	8	8.0
16	10	8.0
18	6	6.0
18	6	8.0
18	8	8.0
24	6	8.0
24	8	8.0

Available
uncoated or coated



λ
0°

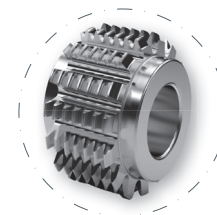
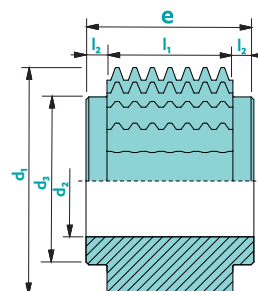
γ
0°

CARB

Hob cutter for involute gears ISO53 / DIN867 - DIN quality AAAA

8100

Material	Vc uncoated	Vc coated	Uncoated	Coated	Rec. Coating *
Steel 20AP	70	90	■	□	TRIO (PO)
Steel Law 100X	70	90	■	□	TRIO (PO)
Finemac	50	60	■	■	TRIO (PO)
4C27A	60	70	■	■	TRIO (PO)
CK45	80	90	■	■	TRIO (PO)
316L	60	70	■	■	TRIO (PO)
Other stainless steel	60	70	■	■	TRIO (PO)
Leaded brass	150	170	■	-	SOLO (DA)
Lead-free brass	150	170	■	□	SOLO (DA)
CuBe	100	120	■	□	SOLO (DA)
Maillechort	120	140	■	□	SOLO (DA)
Bronze	120	140	■	□	SOLO (DA)
Aluminium	200	220	■	-	SOLO (DA)
Titanium	80	90	■	-	-

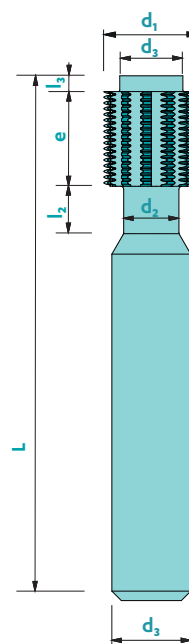


Tolerances d_2 : H3 e : +0/-0.01

Standard modules: 0.050 to 1.000 every 0.05. Other modules: upon request

Art. n°	d_1	e	l_1	d_2	d_3	l_2	Z
8100d8e8m###	8	8.0	6	3.5	5.0	1.0	15
8100d8e10m###	8	10.0	8	3.5	5.0	1.0	15
8100d8e12m###	8	12.0	10	3.5	5.0	1.0	15
8100d10e8m###	10	8.0	6	3.5	6.0	1.0	15
8100d10e10m###	10	10.0	8	3.5	6.0	1.0	15
8100d10e12m###	10	12.0	10	3.5	6.0	1.0	15
8100d12e8m###	12	8.0	6	4.5	8.0	1.0	15
8100d12e10m###	12	10.0	8	4.5	8.0	1.0	15
8100d12e12m###	12	12.0	10	4.5	8.0	1.0	15
8100d16e8m###	16	8.0	6	8.0	10.0	1.0	15
8100d16e10m###	16	10.0	8	8.0	10.0	1.0	15
8100d16e12m###	16	12.0	10	8.0	10.0	1.0	15
8100d18e8m###	18	8.0	6	8.0	12.0	1.0	15
8100d18e10m###	18	10.0	8	8.0	12.0	1.0	15
8100d18e12m###	18	12.0	10	8.0	12.0	1.0	15
8100d24e12m###	24	12.0	9	8.0	16.0	1.5	15
8100d24e15m###	24	15.0	12	8.0	16.0	1.5	15
8100d24e20m###	24	20.0	17	8.0	16.0	1.5	15
8100d32e12m###	32	12.0	9	13.0	24.0	1.5	15
8100d32e15m###	32	15.0	12	13.0	24.0	1.5	15
8100d32e20m###	32	20.0	17	13.0	24.0	1.5	15

Option : on a shank



Available uncoated or coated

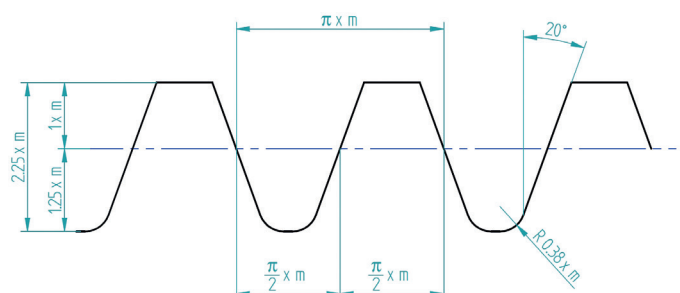


Z15

λ
0°

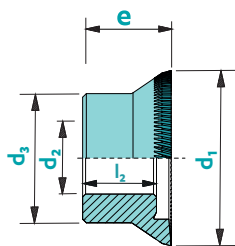
γ
0°

CARB



8700

Power skiving cutter for internal gear teeth



Material	Vc uncoated	Vc coated	Uncoated	Coated	Rec. Coating*
Steel 20AP	70	90	■	□	TRIO (PO)
Steel Law 100X	70	90	■	□	TRIO (PO)
Finemac	50	60	■	■	TRIO (PO)
4C27A	60	70	■	■	TRIO (PO)
CK45	80	90	■	■	TRIO (PO)
316L	60	70	■	■	TRIO (PO)
Other stainless steel	60	70	■	■	TRIO (PO)
Leaded brass	150	170	■	-	SOLO (DA)
Lead-free brass	150	170	■	□	SOLO (DA)
CuBe	100	120	■	□	SOLO (DA)
Maillechort	120	140	■	□	SOLO (DA)
Bronze	120	140	■	□	SOLO (DA)
Aluminium	200	220	■	-	SOLO (DA)
Titanium	80	90	■	-	-

Tolerances d_2 : H3 e : +0/-0.01

Standard modules: 0.050 - 1.000. Other modules upon request

d_1	e	d_2	d_3	l_2
20-25	12	10	18	10
25-32	12	10	18	10

Other dimensions available upon request.

Z: according to machined part

Available
uncoated or coated



CARB

On-line form

You may send a request for a quotation for hob cutters via our on-line form. Our technical office shall analyse your requirements and can recommend the suitable hob cutter for your application.

> www.goo.gl/AVQHQ6

Demande d'offre - fraise de taillage

Remplissez le formulaire de faisabilité des fraises de taillage de roues dentées avec vos coordonnées et transférez vos fichiers de profil. Notre bureau technique analysera vos besoins et sera en mesure de vous proposer le type de fraise à utiliser et les dimensions préconisées dans les heures qui suivent votre demande. Plus votre demande sera complète, plus la réponse sera rapide.

Votre entreprise

Entreprise:
 Adresse:
 NPA: Ville:
 Pays:

Pièce à tailler

Norme: Module:
 Matière à usiner:
 Z: Ø:
 Øda: Ødf:
 Fichier annexe 1: Fichier annexe 3:
 Fichier annexe 2:

Personne de contact

Nom & Prénom:
 Email:
 Téléphone:

Infos : Fraises

Quantité: Epaisseur:
 Ø extérieur: Ø Alésage:
 Revêtement: Z Fraise:
☒ Topping

Remarques:

Protection spam - Quel est le résultat ? *

81 - 17?

Online Spreadsheet for gear hobbing

Calculate your cutting and machining parameters using our interactive tool:

Fiche de calcul pour taillage par génération de roue cylindrique droite

Réf. pièce à tailler: RAZ

Entrées

Norme:
 Matière:
 Module [m]: 0.08
 Z Pièce: 9 dents
 Longueur à tailler [l]: 1.5 mm
 Ø de tête [da]: 0.842 mm
 Ø de pied [df] réel: 2 mm
 Min = 0, Max = Ø primitif [dp]
 Ø d'ébauche [de]: 0.85 mm

Sorties

Pas [p]: 0.251327 mm
 Cote sur 3 dents: 0.8166 mm
 Ø primitif [dp]: 0.7200 mm
 Hauteur profil [h]: -0.5790 mm
 Hauteur profil ébauche [he]: -0.5750 mm

Fraise

Ø Fraise [df]: 12 mm
 Epaisseur: 4 mm
 Z Fraise: 7 dents
 Nbr de filets [f]: 1 file

Paramètres machine

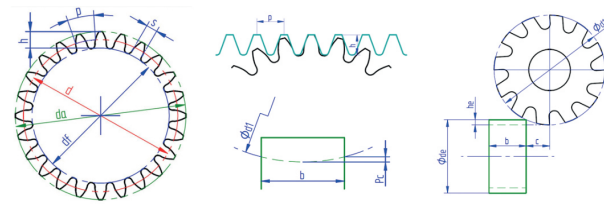
Vc: 105 m/min
 Fz: 0.0048 mm/z

Trajectoire d'usinage:

Sorties

n fraise: 2781 tr/min
 n pièce: 309 tr/min
 Avance [vf]: 10.4 mm/min
 Avance par tour de fraise: 0.0037 mm/tour fraise
 Avance par tour de pièce: 0.0432 mm/tour pièce
 Valeur de shifting: 0.502654 mm
 nbr de shifting: 8.0
 Dégauchement [c]: nan mm
 Temps de taillage: 4.158 secondes

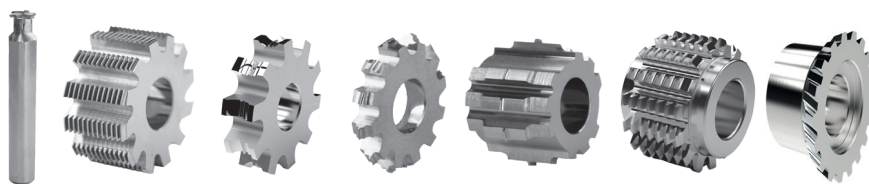
Schémas



RAZ



> www.goo.gl/BqgDXs



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