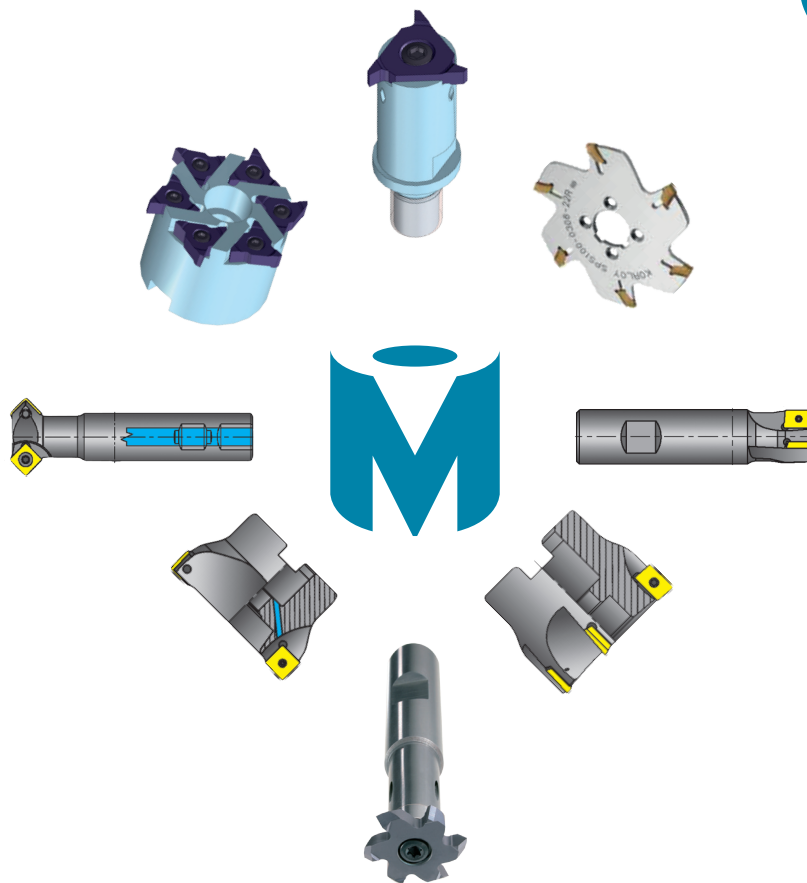


Mimatic Fräskatalog

Der Spezialist für Höchstleistungs- und Präzisionsfräsen

*Le spécialiste pour fraisage à
hautes performance et précision*

gültig ab
2025



Ab Lager Meier Protech oder kurzfristig ab Werk lieferbar.

En stock ou départ usine dans les meilleurs délais.

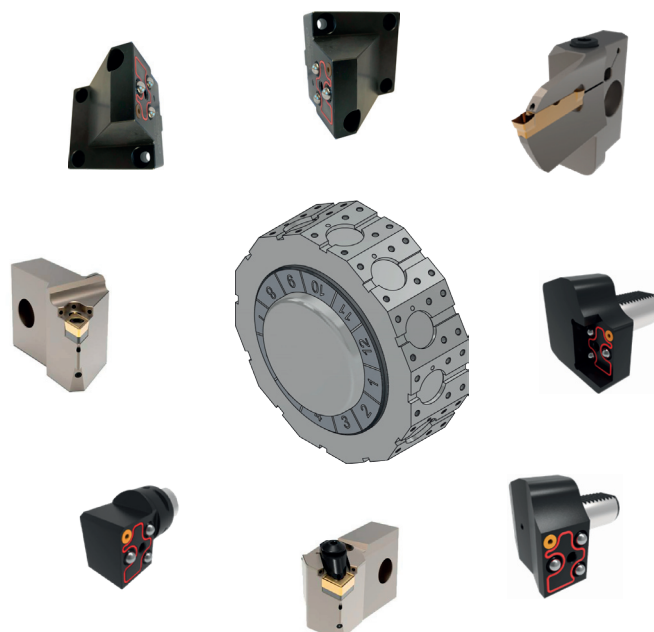
 **meier**
protech

Spann- und Werkzeugtechnik
Technique d'outillage et de serrage

Top-
Qualität
zu Super-Preisen
Excellent rapport
qualité-prix

unsere Stärken

- Trochoidalfräser, Vollhartmetallfräser
- Fräser für die Medizinaltechnik, Luft- und Raumfahrt
- Fräser für den Werkzeug- und Formenbau
- Gewindefräser
- Bohrer für die Medizinaltechnik, Micro-Mechanik
- King Drill Hocheffiziente Wendeplattenbohrer
- TPDC Wechselkopfbohrer für hohe Vorschübe
- Werkzeugprogramm für Langdreher und Mehrspindler
- PZ-Turn Modulares Schnellwechselsystem
- CBN- PKD- und CVD-Werkzeuge
- Aqua-G und PSI Drehhalter mit Innenkühlung (Cool Tool)
- Wendeplatten
- Werkzeugaufnahmen
- HSK Werkzeugaufnahmen
- SK Werkzeugaufnahmen
- BT Werkzeugaufnahmen
- C Werkzeugaufnahmen
- HAWK EYE Präzisions Spannzangenfutter
- angetriebene Werkzeuge
- Modulare Drehtechnik



Zirkularfräser

Zirkular- / Trennfräser



Poly-Fräser

Seite 4



Poly-Fräser

Seite 5



Gewinde

Seite 6



Kerbschlag

Seite 13



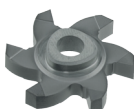
Verzahnung

Seite 14



Nutfräsen

Seite 16



Nutfräsen

Seite 17



Entgraten

Seite 19



Sicherung

Seite 19



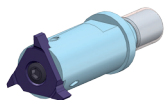
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Seite 20



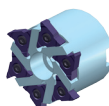
konvexe Form

Seite 20



TriMill Fräser

Seite 21



TriMill Fräser

Seite 22



Gewinde

Seite 24



Nutenfräsen

Seite 27



Sicherungsringe

Seite 28



O-Ringe

Seite 28



Nutenfräsen

Seite 29



O-Ringe

Seite 30



Planfräsen

Seite 30



Grundhalter

Seite 31



Frässcheiben

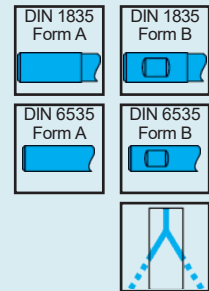
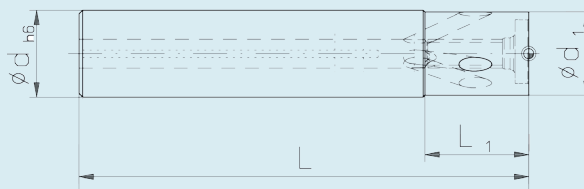
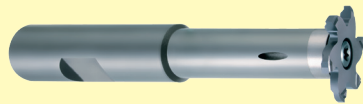
Seite 31



Frässcheiben

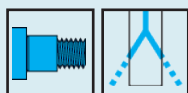
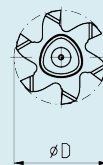
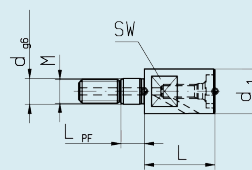
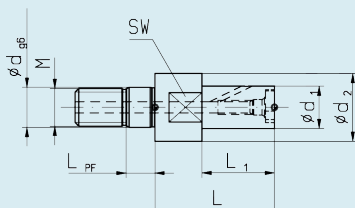
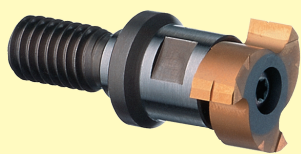
Seite 31

Poly-Fräser



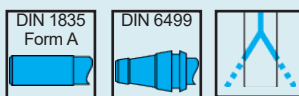
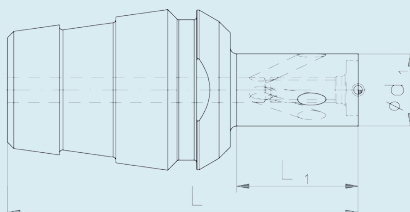
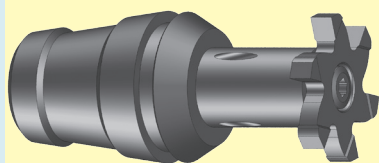
Art.-Nr.	Typ	Bestell-Nr.	Form	kleinster Bohr-Ø	dh6	d1	Smax	L	L1	Schaft	Preis	WSP		
90.351251	P12	123619	B	12.0	12.0	7.0	2.35	67.5	20.0	Stahl		P12	107596	111656
90.351252	"	100228	B	12.0	12.0	7.0	2.35	67.5	20.0	HM		"	"	"
90.351253	"	171778	A	12.0	12.0	7.0	2.35	67.5	20.0	HM		"	"	"
90.351254	"	171780	B	12.0	12.0	7.0	2.35	80.0	30.0	HM		"	"	"
90.351255	"	171781	A	12.0	12.0	7.0	2.35	80.0	30.0	HM		"	"	"
90.351256	"	171783	B	12.0	12.0	7.0	2.35	100.0	40.0	HM		"	"	"
90.351257	"	171784	A	12.0	12.0	7.0	2.35	100.0	40.0	HM		"	"	"
90.351258	P16	123573	B	18.0	12.0	9.0	4.35	67.4	21.0	Stahl		P16	143158	111656
90.351259	"	123577	B	18.0	12.0	9.0	4.35	67.4	21.0	HM		"	"	"
90.351260	"	171787	A	18.0	12.0	9.0	4.35	67.4	21.0	HM		"	"	"
90.351261	"	123580	B	18.0	12.0	9.0	4.35	82.4	36.0	HM		"	"	"
90.351262	"	171789	A	18.0	12.0	9.0	4.35	82.4	36.0	HM		"	"	"
90.351263	"	123584	A	18.0	12.0	9.0	4.35	100.0	30.0	HM		"	"	"
90.351820		123588	A	18.0	12.0	12.0	2.85	82.4	-	HM				
90.351264	"	123590	A	18.0	12.0	12.0	2.85	122.5	-	HM		"	"	"
90.351265	P20	123615	B	22.0	16.0	11.5	5.10	80.0	30.0	Stahl		P20	107597	111671
90.351266	"	123616	B	22.0	16.0	11.5	5.10	80.0	30.0	HM		"	"	"
90.351267	"	171794	A	22.0	16.0	11.5	5.10	80.0	30.0	HM		"	"	"
90.351268	"	123617	B	22.0	16.0	11.5	5.10	100.0	50.0	HM		"	"	"
90.351269	"	171796	A	22.0	16.0	11.5	5.10	100.0	50.0	HM		"	"	"
90.351821		174314	A	22.0	16.0	15.5	3.10	105.5	21.0	HM				
90.351270	P25	123592	B	28.0	16.0	13.6	7.05	79.6	30.5	Stahl		P25	107529	111594
90.351271	"	123598	B	28.0	16.0	13.6	7.05	79.6	30.5	HM		"	"	"
90.351272	"	171855	A	28.0	16.0	13.6	7.05	79.6	30.5	HM		"	"	"
90.351273	"	123600	B	28.0	16.0	13.6	7.05	94.6	45.5	HM		"	"	"
90.351274	"	171857	A	28.0	16.0	13.6	7.05	94.6	45.5	HM		"	"	"
90.351275	"	123603	B	28.0	16.0	13.6	7.05	109.6	60.5	HM		"	"	"
90.351276	"	171859	A	28.0	16.0	13.6	7.05	109.6	60.5	HM		"	"	"
90.351277	"	123609	A	28.0	16.0	15.5	6.10	105.0	21.5	HM		"	"	"
90.351278	"	123611	A	28.0	16.0	15.5	6.10	149.5	21.5	HM		"	"	"
90.351279	"	123613	A	28.0	20.0	15.5	6.10	178.5	21.5	HM		"	"	"

Poly-Fräser



Art.-Nr.	Typ	Bestell-Nr.	kleinster Bohr-Ø	Dmax mm	d1 mm	d2 mm	Smax mm	L mm	L1 mm	G	Preis		
90.351834	P12	177676	12.0	11.7	9.5	-	1.1	13.5	-	M5	107596	111656	
90.351280	P16	123586	18.0	17.7	9.0	14.4	4.35	29.5	19.5	M8	143158	111656	
90.351835	P16	177683	18.0	17.7	9.5	-	4.1	18.5	-	M5	143158	111656	
90.351836	P16	177698	18.0	17.7	11.0	-	3.35	18.5	-	M6	143158	111656	
90.351281	P20	123618	22.0	21.7	11.5	18.0	5.1	35.0	25.0	M10	107597	111671	
90.351837	P20	177734	22.0	21.7	11.5	-	5.1	20.5	-	M6	107597	111671	
90.351838	P20	177735	22.0	21.7	13.5	-	4.1	20.5	-	M8	107597	111671	
90.351282	P25	123605	27.0	27.7	13.6	22.5	7.05	42.5	29.5	M12	107529	111594	
90.351839	P25	177747	27.0	27.7	13.6	-	7.05	22.6	-	M8	107529	111594	
90.351840	P25	177767	27.0	27.7	18.0	-	4.85	22.6	-	M10	107529	111594	

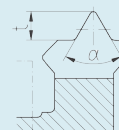
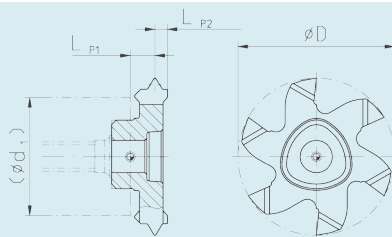
PolyMill Fräser



				kleinster Bohr-Ø									
Art.-Nr.	Typ	Bestell- Nr.	Form		Dmax mm	dg6 mm	d1 mm	Smax mm	L mm	L1 mm	Preis		
90.351822	P12	177170	A	12.0	11.7	10.0	7.0	2.35	54.0	8.0		107596	111656
90.351823	P12	177172	ER 16	12.0	11.7		7.0	2.35	37.5	8.0		107596	111656
90.351824	P12	177173	ER 20	12.0	11.7		7.0	2.35	47.0	13.0		107596	111656
90.351825	P16	177174	A	18.0	17.7	10.0	9.0	4.35	60.0	11.0		143158	111656
90.351826	P16	177176	ER 16	18.0	17.7		9.0	4.35	41.4	11.0		143158	111656
90.351827	P16	177177	ER 20	18.0	17.7		9.0	4.35	51.0	16.0		143158	111656
90.351828	P20	177178	A	22.0	21.7	12.0	11.5	5.1	62.4	14.4		107597	111671
90.351829	P20	177180	ER 20	22.0	21.7		11.5	5.1	49.5	14.5		107597	111671
90.351830	P20	177181	ER 25	22.0	21.7		11.5	5.1	56.0	19.4		107597	111671
90.351831	P25	177182	A	28.0	27.7	16.0	13.6	7.05	69.6	20.4		107529	111594
90.351832	P25	177184	ER 25	28.0	27.7		13.6	7.05	56.0	19.4		107529	111594
90.351833	P25	177185	ER 32	28.0	27.7		13.6	7.05	73.0	30.4		107529	111594

Gewinde

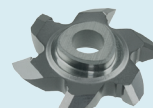
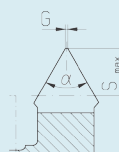
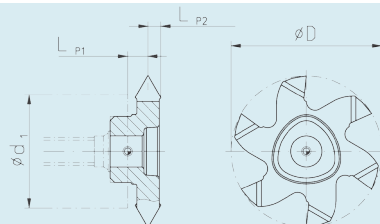
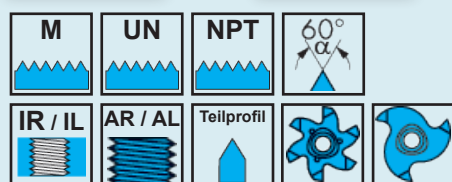
Vollprofil



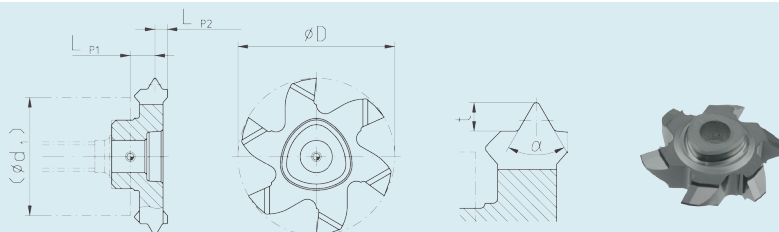
Art.-Nr.	Bestell-Nr.	Typ	Steigung mm	D mm	LP1 mm	LP2 mm	t mm	Gewinde	Zähnezahl	Preis
90.351401	171875	P1210	1.00	9.6	2.65	0.80	0.572	M14x1	3	
90.351402	171876	P1210	1.50	9.6	2.50	0.95	0.875	M16x1.5	3	
90.351841	175479	P1210	1.75	9.6	2.25	1.20	1.010	nur M12	3	
90.351842	160857	P1211	2.00	10.5	2.25	1.20	1.127	M14/M16	3	
90.351403	171877	P1211	2.00	10.5	2.25	1.20	1.157	M20x2	3	
90.351843	107240	P1616	1.00	16.0	2.80	1.03	0.572	M20x1	6	
90.351404	142569	P1616	1.50	16.0	2.55	1.28	0.864	M24x1.5	6	
90.351405	142570	P1616	2.00	16.0	2.05	1.78	1.159	M26x2	6	
90.351406	142543	P1616	2.50	16.0	2.05	1.78	1.444	M30x2.5	6	
90.351407	142534	P1616	2.50	16.0	2.05	0.78	1.444	nur M20	6	
90.351408	142575	P1616	3.00	16.0	3.05	1.78	1.702	M32x3	6	
90.351409	168683	P2020	1.50	20.0	2.55	1.28	0.875	M26x1.5	6	
90.351410	168684	P2020	2.00	20.0	2.55	1.28	1.157	M30x2	6	
90.351411	168685	P2020	3.00	20.0	2.15	1.68	1.745	nur M24	6	
90.351415	142671	P2524	3.50	24.0	2.75	1.08	2.023	nur M30	6	
90.351412	142617	P2526	1.50	26.0	1.85	1.98	0.864	M34x1.5	6	
90.351413	142644	P2526	2.00	26.0	2.55	1.28	1.159	M38x2	6	
90.351414	142599	P2526	3.00	26.0	2.95	0.88	1.728	M45x3	6	
90.351416	142623	P2526	3.50	26.0	2.90	1.93	2.023	M50x3.5	6	
90.351417	142624	P2526	4.00	26.0	2.90	1.93	2.262	M52x4	6	
90.351418	169675	P2526	4.00	26.0	2.65	2.18	2.262	nur M36	6	
90.351419	142638	P2526	4.50	26.0	2.65	2.18	2.602	M56x4.5	6	
90.351420	107275	P2526	5.00	26.0	3.85	3.48	2.836	M62x5	6	
90.352627	161786	P2526	5.50	26.0	3.85	3.48	3.182	M68x5.5	6	
90.352617	175645	P2526	6.00	26.0	3.85	3.48	3.467	M72x6	6	

Gewinde

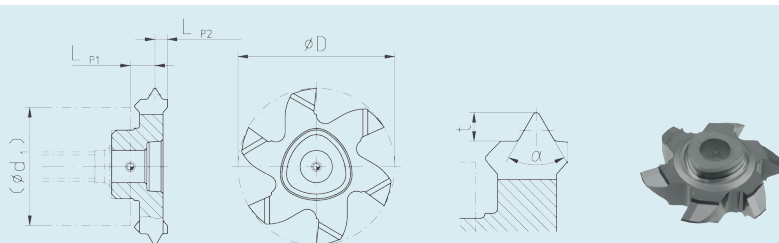
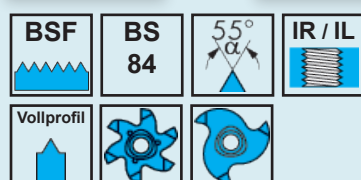
Teilprofil



Art.-Nr.	Bestell-Nr.	Typ	Steigung mm	D mm	LP1 mm	LP2 mm	G mm	Zähnezahl	Preis
90.351421	171911	P1212	1-3	11.7	2.125	1.33	0.10	3	
90.351422	142580	P1616	1-4	16.0	2.70	1.68	0.10	6	
90.351423	142544	P1616	2.5-4	16.0	2.70	1.68	0.25	6	
90.351424	171954	P1618	1-3	17.7	2.70	1.05	0.10	6	
90.351425	168686	P2020	1-3	20.0	2.15	1.68	0.10	6	
90.351426	171972	P2022	1-2	21.7	4.15	1.00	0.10	6	
90.351427	171973	P2022	2-4	21.7	2.95	1.80	0.15	6	
90.351428	142647	P2526	1-3	26.0	2.75	2.08	0.10	6	
90.351429	142592	P2526	2.5-5	26.0	2.65	2.18	0.25	6	
90.352607	175936	P2526	3.5-6	26.0	3.85	0.70	0.40	6	

Gewinde
Vollprofil


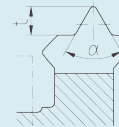
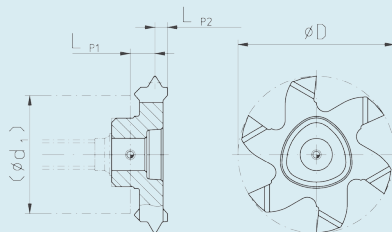
Art.-Nr.	Bestell-Nr.	Typ	Gang/°	D mm	LP1 mm	LP2 mm	t mm	Gewinde	Zähnezahl	Preis
90.351844	162119	P1210	12	10.0	2.25	1.1	1.371	BSW 9/16"	3	
90.351845	160998	P1210	11	10.4	2.15	1.5	1.494	BSW 5/8"+11/16"	3	
90.351846	160663	P1212	10	11.7	2.20	1.4	1.728	BSW 3/4"+13/16"	3	
90.351847	160940	P1616	9	16.0	2.10	1.675	1.622	BSW 7/8"+15/16"	6	
90.351848	161053	P1616	8	16.0	2.10	1.675	1.83	BSW 1"	6	
90.351849	161166	P1616	7	16.0	2.65	2.125	2.098	BSW 1 1/8"+1 1/4"	6	
90.351850	162371	P1616	6	16.0	3.175	2.7	2.455	BSW 1 3/8"+1 1/2"	6	
90.351851	160959	P2020	7	20.0	2.70	2.225	2.098	BSW 1 1/8"+1 1/4"	6	
90.351852	161270	P2020	6	20.0	3.15	2.675	2.455	BSW 1 3/8"+1 1/2"	6	
90.351853	161466	P2524	6	24.0	4.40	2.675	2.455	BSW 1 3/8"	6	
90.351854	162615	P2524	6	24.0	4.40	2.675	2.455	BSW 1 1/2"	6	
90.352608	161100	P2524	5	24.0	3.90	2.875	2.955	BSW 1 5/8"+1 3/4"	6	

Gewinde
Vollprofil


Art.-Nr.	Bestell-Nr.	Typ	Gang/°	D mm	LP1 mm	LP2 mm	t mm	Gewinde	Zähnezahl	Preis
90.351855	160930	P1210	14	9.6	2.25	1.1	1.177	BSF 5/8"+11/16"	3	
90.351856	161623	P1210	12	10.0	2.25	1.1	1.371	BSF 3/4"+13/16"	3	
90.351857	160951	P1210	11	10.4	2.15	1.5	1.494	BSF 7/8"	3	
90.351846	160663	P1212	10	11.7	2.20	1.4	1.728	BSF 1"	3	
90.351858	160989	P1216	9	16.0	2.10	1.675	1.622	BSF 1 1/8"+1 1/4"	6	
90.351859	162077	P1216	8	16.0	2.10	1.675	1.83	BSF 1 3/8"-1 5/8"	6	
90.351860	160960	P1216	7	16.0	2.65	2.125	2.098	BSF 1 3/4"+2"	6	
90.351861	162305	P1216	6	16.0	3.175	2.7	2.455	BSF 2 1/4"-2 3/4"	6	
90.351862	161089	P2020	8	20.0	2.15	1.675	1.83	BSF 1 3/8"-1 5/8"	6	
90.351863	161341	P2020	7	20.0	2.70	2.225	2.098	BSF 1 3/4"+2"	6	
90.351864	160942	P2020	6	20.0	3.15	2.675	2.455	BSF 2 1/4"-2 3/4"	6	
90.351865	162051	P2524	8	24.0	2.10	1.675	1.83	BSF 1 3/8"-1 5/8"	6	
90.351866	161436	P2524	7	24.0	2.65	2.175	2.098	BSF 1 3/4"+2"	6	
90.351867	161887	P2524	6	24.0	4.40	2.675	2.455	BSF 2 1/4"-2 3/4"	6	
90.351868	161250	P2524	5	24.0	3.90	2.875	2.955	BSF 3"-3 1/4"	6	

Gewinde

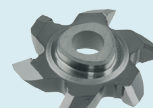
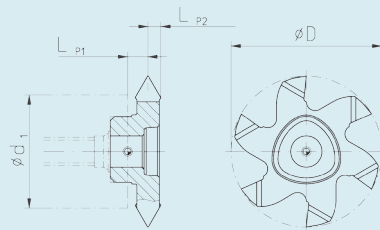
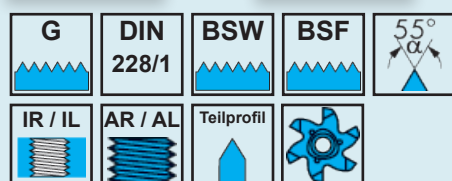
Vollprofil



Art.-Nr.	Bestell-Nr.	Typ	Gang/°	D mm	LP1 mm	LP2 mm	t mm	Gewinde	Zähnezahl	Preis
90.352609	160943	P1212	14	11.7	2.30	1.1	1.178	G 1/2"-G 7/8"	3	
90.351869	160967	P1212	12	11.7	2.25	1.4	1.374	BSW/BSF-12Gg	3	
90.351870	161112	P1212	11	11.7	2.25	1.4	1.498	BSW/BSF-11Gg	3	
90.351894	161112	P1212	11	11.7	2.25	1.2	1.498	G 1"-G 6"	3	
90.351871	161184	P1212	10	11.7	2.25	1.4	1.646	BSW/BSF-10Gg	3	
90.351446	142576	P1616	14	16	2.15	1.675	1.177	G 3/4"-G 7/8"	6	
90.351872	160947	P1616	12	16	2.15	1.675	1.374	BSW/BSF-12Gg	6	
90.351445	142549	P1616	11	16	2.75	2.075	1.478	G 1"-G 6"	6	
90.351447	167014	P1616	10	16	2.15	1.675	1.646	BSW/BSF-10Gg	6	
90.351873	160977	P1616	9	16	2.15	1.675	1.829	BSW/BSF-9Gg	6	
90.351874	161744	P1616	8	16	2.75	2.075	2.056	BSW/BSF-8Gg	6	
90.351875	162097	P1616	7	16	3.15	2.225	2.348	BSW/BSF-7Gg	6	
90.351876	162650	P1616	6	16	3.15	2.225	2.737	BSW/BSF-6Gg	6	
90.351450	168688	P2020	14	20	3.95	1.725	1.177	G 3/4"-G 7/8"	6	
90.351877	160963	P2020	12	20	2.10	1.725	1.374	BSW/BSF-12Gg	6	
90.351449	168687	P2020	11	20	3.95	1.725	1.478	G 1"-G 6"	6	
90.351878	160984	P2020	10	20	2.10	1.725	1.646	BSW/BSF-10Gg	6	
90.351879	160997	P2020	9	20	2.10	1.725	1.829	BSW/BSF-9Gg	6	
90.351880	161113	P2020	8	20	2.65	2.175	2.056	BSW/BSF-8Gg	6	
90.351881	161259	P2020	7	20	2.65	2.175	2.348	BSW/BSF-7Gg	6	
90.351882	161325	P2020	6	20	3.15	2.675	2.737	BSW/BSF-6Gg	6	
90.351885	161130	P2524	6	24	4.40	2.675	2.737	BSW/BSF-6Gg	6	
90.351886	161400	P2524	5	24	4.40	2.675	3.281	BSW/BSF-5Gg	6	
90.351451	142600	P2526	11	26	2.75	2.075	1.478	G 1 1/2"-G 6"	6	
90.351883	160949	P2526	8	26	2.60	2.175	2.056	BSW/BSF-8Gg	6	
90.351884	160950	P2526	7	26	2.60	2.175	2.348	BSW/BSF-7Gg	6	

Gewinde

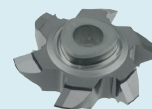
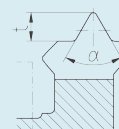
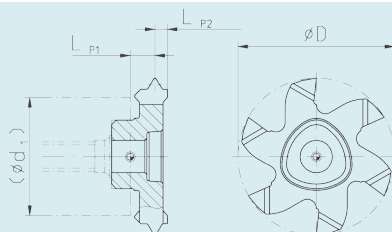
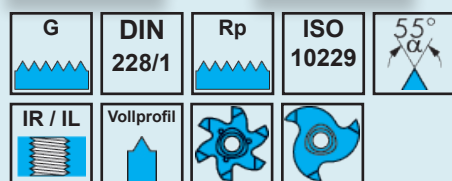
Teilprofil



Art.-Nr.	Bestell-Nr.	Typ	Gang/°	D mm	LP1 mm	LP2 mm	r mm	Smax mm	Zähnezahl	Preis
90.351887	173906	P1616	14-8	16.0	2.75	1.625	0.35	2.5	6	
90.351888	177427	P2526	8-4	26.0	2.65	2.175	0.60	2.8	6	

Gewinde

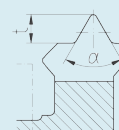
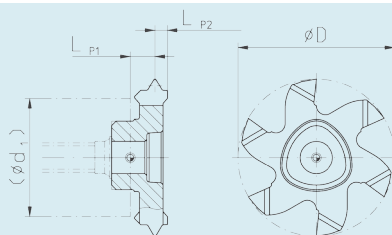
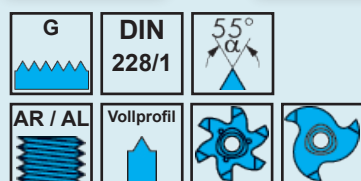
Vollprofil



Art.-Nr.	Bestell-Nr.	Typ	Gang/“	D mm	LP1 mm	LP2 mm	t mm	Gewinde	Zähnezahl	Preis
90.351889	160952	P1210	19	9.6	2.25	1.2	0.871	G 1/4"	3	
90.351444	171912	P1210	19	9.6	2.25	1.2	0.871	G 3/8"	3	
90.351890	160970	P1212	14	11.7	2.25	1.2	1.177	G 1/2"-G 7/8"	3	
90.351891	160996	P1212	11	11.7	2.15	1.5	1.319	G 1"-G 6"	3	
90.351892	160620	P1616	14	16	2.15	1.675	1.177	G 1/2"-G 5/8"	6	
90.351893	160980	P2526	11	26	2.75	2.075	1.478	G 1"-G 1 1/4"	6	

Gewinde

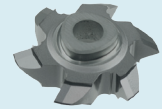
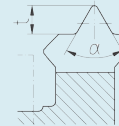
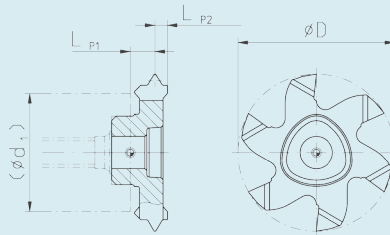
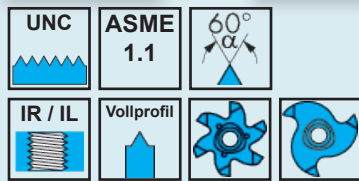
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Art.-Nr.	Bestell-Nr.	Typ	Gang/“	D mm	LP1 mm	LP2 mm	t mm	Gewinde	Zähnezahl	Preis
90.351894	161112	P1212	11	11.7	2.25	1.2	1.498	G 1"-G 6"	3	
90.351448	171949	P1618	14	17.7	3.15	0.95	1.177	G 1/2"-G 7/8"	6	

Gewinde

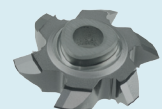
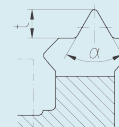
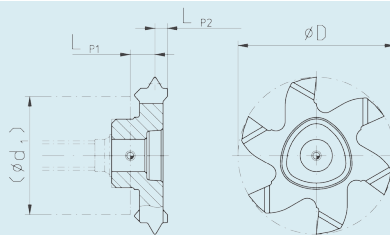
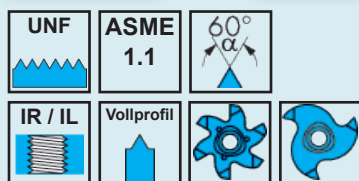
Vollprofil



Art.-Nr.	Bestell-Nr.	Typ	Gang/“	D mm	LP1 mm	LP2 mm	t mm	Gewinde	Zähnezahl	Preis
90.351430	171883	P1210	12	10.0	2.25	1.2	1.29	UNC 12	3	
90.351431	171880	P1211	11	10.5	2.13	1.52	1.35	UNC 11	3	
90.351432	171879	P1212	10	11.7	2.13	1.52	1.485	UNC 10	3	
90.351433	172148	P1616	9	16.0	2.05	1.775	1.577	UNC 9	6	
90.351434	172149	P2018	8	18.0	2.65	2.175	1.809	UNC 8	6	
90.351435	172150	P2020	7	20.0	2.65	2.175	2.043	UNC 7	6	
90.351436	172151	P2524	6	24.0	4.05	3.275	2.454	UNC 6	6	
90.351437	172152	P2526	5	26.0	3.85	3.475	2.979	UNC 5	6	
90.351438	172153	P2526	4.5	26.0	3.85	3.475	3.289	UNC 4 1/2	6	

Gewinde

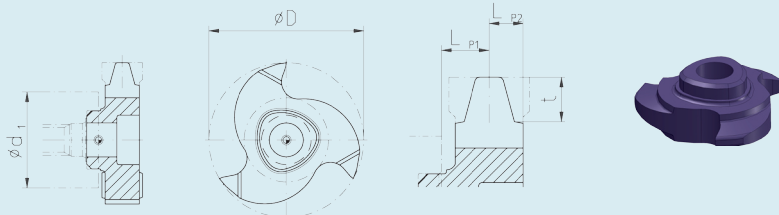
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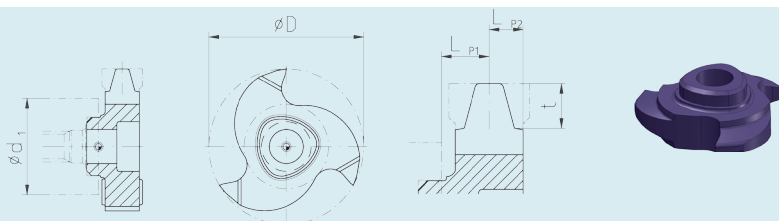
Art.-Nr.	Bestell-Nr.	Typ	Gang/“	D mm	LP1 mm	LP2 mm	t mm	Gewinde	Zähnezahl	Preis
90.351439	171884	P1210	20	9.6	2.5	0.95	0.733	UNF 1/2-20	3	
90.351440	171885	P1211	18	10.5	2.5	0.95	0.827	UNF 9/16-18	3	
90.351441	171900	P1212	16	11.7	2.5	0.95	0.945	UNF 3/4-16	3	
90.351442	171950	P1618	14	17.7	3.15	0.95	1.071	UNF 7/8-14	6	
90.351443	171951	P2020	12	20.0	2.15	1.675	1.228	UNF 1-12	6	

Gewinde

Vollprofil



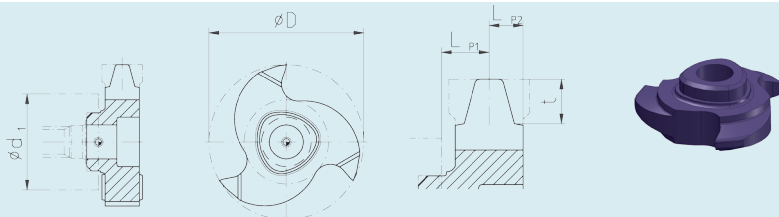
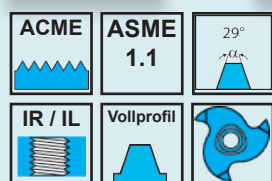
Art.-Nr.	Bestell-Nr.	Typ	Steigung mm	D mm	LP1 mm	LP2 mm	t mm	Gewinde	Zähnezahl	Preis
90.351895	177717	P1212	2.0	11.7	2.50	1.1	1.25	Tr 16x2-Tr 20x2	3	
90.351896	160862	P1211	3.0	11.0	2.23	1.42	1.75	Tr 18x3-Tr 20x3	3	
90.351897	160308	P1212	4.0	12.0	2.15	1.5	2.25	Tr 20x4	3	
90.351898	162630	P1614	3.0	14.0	2.30	1.5	1.75	Tr 24x3-Tr 32x3	3	
90.351899	166213	P1615	5.0	15.0	3.15	2.1	2.75	Tr 26x5	3	
90.351900	150365	P1615	5.0	15.0	3.15	2.1	2.75	Tr 28x5	3	
90.351901	182498	P1616	6.0	16.2	4.27	3.0	3.25	Tr 30x6-Tr 32x6	3	
90.351902	161736	P1616	6.0	16.2	4.22	3.03	3.25	Tr 34x6-Tr 42x6	3	
90.351903	160872	P2525	5.0	25.0	3.20	2.37	2.75	Tr 44x5-Tr 48x5	3	
90.351904	162648	P2522	7.0	22.0	4.00	2.65	3.75	Tr 38x7-Tr 42x7	3	
90.351905	161111	P2522	7.0	22.0	4.00	2.65	3.75	Tr 44x7	3	
90.351906	162257	P2525	8.0	25.0	4.75	3.4	4.25	Tr 46x8-Tr 48x8	3	
90.351907	110966	P2525	8.0	25.0	5.03	3.13	4.25	Tr 50x8-Tr 52x8	3	
90.351908	160869	P2525	9.0	25.0	4.73	3.42	4.75	Tr 55x9-Tr 60x9	3	
90.351909	167236	P2525	10.0	25.0	4.65	3.5	5.25	Tr 65x10-Tr 80x10	3	



Art.-Nr.	Bestell-Nr.	Typ	Steigung mm	D mm	LP1 mm	LP2 mm	t mm	Gewinde	Zähnezahl	Preis
90.351910	a.A.	P1212	1.5	11.7			0.90		3	
90.351911	a.A.	P1212	2.0	11.7			1.25		3	
90.351912	a.A.	P1211	3.0	11.7			1.75		3	
90.351913	a.A.	P1212	4.0	11.7			2.25		3	
90.351914	a.A.	P1616	3.0	16.0			1.75		3 / 6	
90.351915	a.A.	P1616	4.0	16.0			2.25		3 / 6	
90.351916	a.A.	P1616	5.0	16.0			2.75		3 / 6	
90.351917	a.A.	P1616	6.0	16.0			3.25		3 / 6	
90.351918	a.A.	P2525	4.0	25 / 26			2.25		3 / 6	
90.351919	a.A.	P2525	5.0	25 / 26			2.75		3 / 6	
90.351920	a.A.	P2525	6.0	25 / 26			3.75		3 / 6	
90.351921	a.A.	P2525	7.0	25 / 26			3.75		3 / 6	
90.351922	a.A.	P2525	8.0	25 / 26			4.25		3 / 6	
90.351923	a.A.	P2525	9.0	25 / 26			4.75		3 / 6	
90.351924	a.A.	P2525	10.0	25 / 26			5.25		3 / 6	

Gewinde

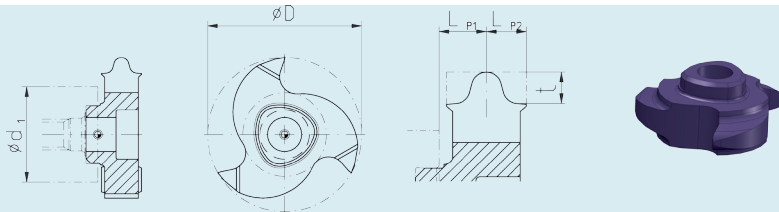
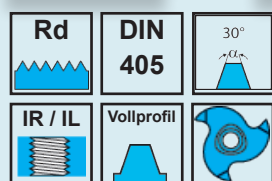
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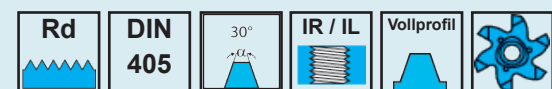
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90.351925	182614	P1616	5.08	5	16.0	3.02	2.23	1.52	1"-5Gg-1 1/8"-5Gg	3	
90.351926	172556	P1616	6.35	4	16.0	4.04	3.21	1.9	1 1/4"-4Gg-1 1/2"-4Gg	3	
90.351927	162654	P2524	6.35	4	24.0	3.90	2.75	1.9	1 3/4"-4Gg-2"-4Gg	3	
90.351928	161935	P2525	8.467	3	25.0	4.65	3.5	2.54	2 1/4"-3Gg-2 3/4"-3Gg	3	

Gewinde

Vollprofil



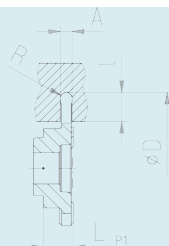
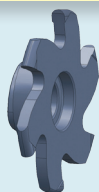
Art.-Nr.	Bestell-Nr.	Typ	Steigung mm	Gang/ Zoll	D mm	LP1 mm	LP2 mm	t mm	Gewinde	Zähne- zahl	Preis
90.351929	174442	P1613	3.175	8	13.0	3.15	2.1	1.588	Rd20x1/8	3	
90.351930	161424	P1614	3.175	8	14.0	3.15	2.1	1.588	Rd22x1/8	3	
90.351931	161156	P1616	3.175	8	15.0	2.40	1.9	1.588	Rd24x1/8-Rd26x1/8	3	
90.351932	174421	P1616	3.175	8	16.0	2.40	1.9	1.588	Rd28x1/8-Rd32x1/8	3	
90.351933	162544	P1616	3.175	8	16.0	2.40	1.9	1.588	Rd34x1/8-Rd38x1/8	3	
90.351934	160954	P1616	4.233	6	16.0	3.15	2.575	2.117	Rd40x1/6-Rd55x1/6	3	
90.351935	161067	P1616	4.233	6	16.0	3.15	2.575	2.117	Rd58x1/6-Rd80x1/6	3	
90.351936	161110	P1616	4.233	6	16.0	3.15	2.575	2.117	Rd82x1/6-Rd100x1/6	3	
90.351937	160995	P1616	6.35	4	16.0	4.15	3.125	3.175	Rd105x1/4-Rd200x1/4	3	



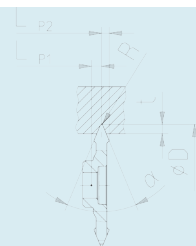
90.351938	175137	P1616	3.175	8	16.0	2.65	2.0	1.588	Rd28x1/8	6	
90.351939	172430	P2526	4.233	6	26.0	3.85	3.4	2.117	Rd65x1/6	6	
90.351940	168288	P2526	6.35	4	26.0	3.85	3.4	3.175	Rd105x1/4-Rd120x1/4	6	

Kerbschlag Biegeversuch

U-Probe



V-Probe

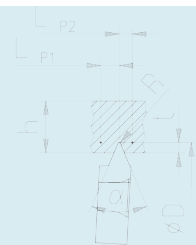


Art.-Nr.	Bestell-Nr.	Typ	A mm	R	a	LP1 mm	LP2 mm	t mm	Kerbform	Zähnezahl	Preis
90.351293	171975	P2022	2.0	1.0	-	4.9	0	3	U-DVM	6	
90.351941	175889	P2022	1.5	0.75	-	4.9	0	2	U-DVMK	6	
90.351942	182208	P2020	-	0.25	45°	2.15	1.675	2	V	6	
90.351943	160808	P2020	-	0.1	60°	2.15	1.675	1	V-KLST	6	
90.352610	160909	P2526	2.0	1.0	-	4.9	0	5	U	6	
90.352610	160909	P2526	2.0	1.0	-	4.9	0	3	U-DVM	6	
90.351944	162057	P2526	1.5	0.75	-	4.9	0	2	U-DVMK	6	
90.351945	180815	P2526	-	0.25	45°	2.1	1.7	2	V	6	
90.351946	184126	P2526	-	0.1	60°	2.7	1.8	1	V-KLST	6	

U-Probe

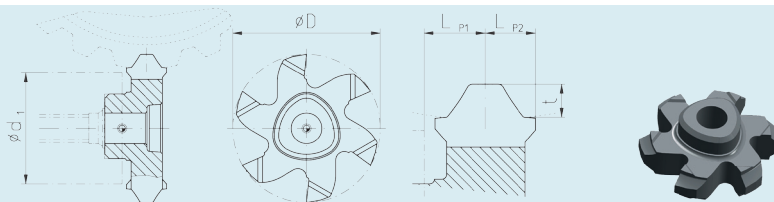


V-Probe



Art.-Nr.	Bestell-Nr.	Typ	A mm	R	a	LP1 mm	LP2 mm	t mm	Kerbform	Zähnezahl	Preis
90.354153	160730	013	2.0	1.0	-	5.2	1.33	5.0	U	3	
90.354221	185159	013	2.0	1.0	-	6.53	0	3.0	U-DVM	3	
90.354152	162406	013	1.5	0.75	-	6.53	0	2.0	U-DVMK	3	
90.354222	184439	013	-	0.25	45°	3.53	3	2.0	V	3	
90.354223	161407	013	-	0.1	60°	2.73	3.8	1.0	V-KLST	3	

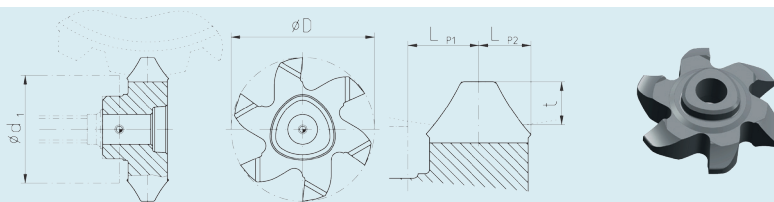
Verzahnung



Zahnwellen-Verbindung

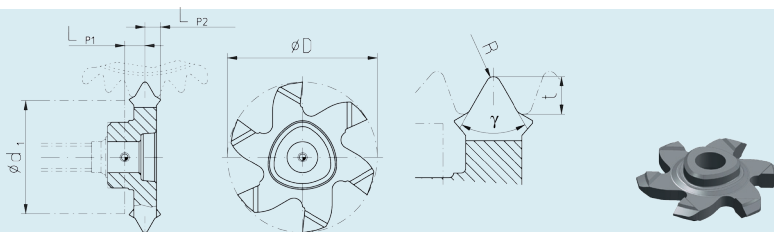
Art.-Nr.	Bestell-Nr.	Typ	Welle	Modul	Eingriffs-winkel	Z-Zahl-Welle	D mm	LP1 mm	LP2 mm	t mm	Zähne-zahl	Preis
90.351947	184142	P1616	W9	0.8	30°	10	15.0	2.05	1.775	0.71	6	
90.351948	174569	P1616	W11	0.8	30°	12	15.85	2.05	1.775	0.8	6	
90.351949	169336	P1616	W14	0.8	30°	16	16.0	2.05	1.775	0.8	6	
90.351950	169090	P1616	W16	0.8	30°	18	16.0	2.05	1.775	0.8	6	
90.351951	168668	P1616	W20	0.8	30°	24	16.0	2.05	1.775	0.8	6	
90.351952	182361	P1616	W20	1.25	30°	14	16.0	2.65	2.175	1.45	6	
90.351953	169340	P1616	W24	1.25	30°	18	16.0	2.55	2.275	1.25	6	
90.351954	185309	P1616	W25	1	30°	24	16.0	2.15	1.675	0.95	6	
90.351955	149415	P1616	W25	2	30°	11	16.0	4.15	3.3	2.0	6	
90.351956	176246	P1616	W30	1.25	30°	22	16.0	2.55	2.275	1.25	6	
90.351957	187145	P1616	W31	0.8	30°	37	16.0	2.15	1.675	0.78	6	
90.351958	185305	P1616	W32	1.25	30°	24	16.0	2.65	2.175	1.19	6	
90.351959	188287	P1616	W35	0.8	30°	42	16.0	2.15	1.675	0.78	6	
90.351960	186028	P1616	W35	1.5	30°	22	16.0	2.65	2.175	1.43	6	
90.351961	179140	P1616	W35	2	30°	16	16.0	3.05	2.775	2.0	6	
90.351962	187909	P1616	W40	1	30°	38	16.0	2.08	1.75	0.96	6	
90.351963	179651	P1616	W42	1.25	30°	32	16.0	2.55	2.275	1.25	6	
90.351964	181902	P1616	W50	1	30°	48	16.0	2.65	2.175	1.25	6	
90.351965	169687	P1616	W50	2	30°	24	16.0	3.05	2.775	2.0	6	
90.351966	185304	P1616	W52	1.25	30°	40	16.0	2.65	2.175	1.21	6	
90.351967	187910	P1616	W55	1	30°	54	16.0	2.08	1.75	0.97	6	
90.351968	188163	P2526	W25	1.25	30°	18	26.0	2.65	2.175	1.28	6	
90.351969	187574	P2526	W30	2	30°	13	26.0	3.9	3.425	1.76	6	
90.351970	187997	P2526	W38	2	30°	18	26.0	3.9	3.425	2.21	6	
90.351971	187575	P2526	W40	2	30°	18	26.0	3.9	3.425	1.86	6	
90.351972	187576	P2526	W45	2	30°	21	26.0	3.9	3.425	1.9	6	
90.351973	169786	P2526	W50	2	30°	24	26.0	3.85	3.475	2.0	6	
90.351974	160321	P2526	W72	2	30°	34	26.0	3.85	3.475	1.92	6	
90.351975	160323	P2526	W80	2.5	30°	30	26.0	3.85	3.475	2.39	6	
90.351976	160322	P2526	W90	2	30°	44	26.0	3.85	3.475	1.94	6	

Verzahnung



Zahnwellen-Profil

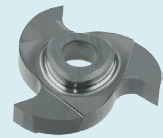
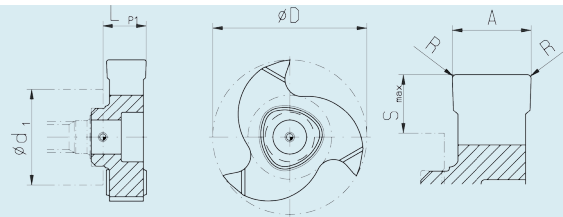
Art.-Nr.	Bestell-Nr.	Typ	Profil	Modul	Eingriffs-winkel	Zähnezahl Welle	D mm	LP1 mm	LP2 mm	t mm	Zähne-zahl	Preis
90.351979	169337	P1616	B 15x12	1.6	30°	8	16.0	3.05	2.775	1.5	6	
90.351980	169111	P1616	B 17x14	1.6	30°	9	16.0	3.05	2.775	1.5	6	
90.351981	169101	P1616	B 20x17	1.6	30°	12	16.0	3.05	2.775	1.5	6	
90.351982	169107	P1616	B 25x22	1.6	30°	14	16.0	3.05	2.775	1.65	6	
90.351983	186842	P1616	B 40x36	1.9	30°	20	16.0	3.175	2.65	1.91	6	
90.351984	178172	P2526	B 35x31	1.75	30°	18	26.0	3.85	3.475	2.0	6	
90.351985	186398	P2526	B 38x34	1.9	30°	19	26.0	4.4	2.675	1.91	6	
90.351986	179212	P2526	B 45x41	2	30°	22	26.0	3.85	3.475	1.91	6	
90.351987	173903	P2526	B 55x50	2	30°	26	26.0	3.85	3.475	2.75	6	



Kerbverzahnung

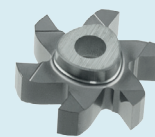
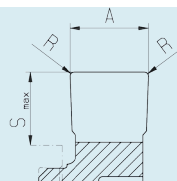
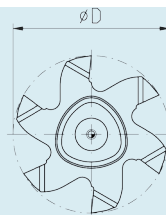
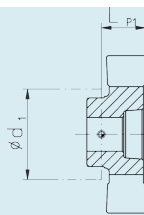
Art.-Nr.	Bestell-Nr.	Typ	Welle	R mm	Lücken-Winkel y	Z-Zahl Welle	D mm	LP1 mm	LP2 mm	t mm	Zähne-zahl	Preis
90.351977	171358	P2526	26x30	0.3	60°	35	26.0	2.15	2.675	1.638	6	
90.351978	171359	P2526	40x44	0.4	60°	38	26.0	2.15	2.675	1.94	6	

Nutfräsen



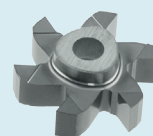
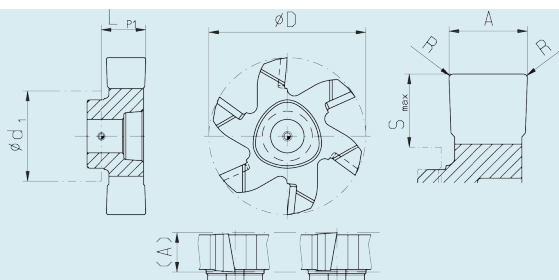
Art.-Nr.	Bestell-Nr.	Typ	A mm	D mm	α°	R mm	LP1 mm	LP2 mm	Smax mm	Zähnezahl	Preis
90.351777	171915	P1210	0.74	9.6	6°	0.1	3.25	0.1	1.2	3	
90.351778	171916	P1210	0.84	9.6	6°	0.1	3.25	0.1	1.2	3	
90.351779	171917	P1210	1.0	9.6	6°	0.1	3.25	0.1	1.2	3	
90.351780	171918	P1210	1.2	9.6	6°	0.1	3.25	0.1	1.2	3	
90.351781	171919	P1210	1.4	9.6	6°	0.1	3.25	0.1	1.2	3	
90.351782	171920	P1210	1.5	9.6	6°	0.1	3.25	0.1	1.2	3	
90.351988	173937	P1210	1.575	9.6	6°	0.1	3.25	0.1	1.2	3	
90.351783	171921	P1210	1.7	9.6	6°	0.1	3.25	0.1	1.2	3	
90.351784	171922	P1210	2.0	9.6	6°	0.1	3.75	-	1.2	3	
90.351785	171923	P1210	2.5	9.6	6°	0.1	3.75	-	1.2	3	
90.351297	171862	P1212	1.5	11.7	6°	0.1	3.4	-	2.25	3	
90.351298	171863	P1212	2.0	11.7	6°	0.15	3.4	-	2.25	3	
90.351299	171865	P1212	2.5	11.7	6°	0.15	3.4	-	2.25	3	
90.351300	171866	P1212	3.0	11.7	6°	0.15	3.55	-	2.25	3	
90.351786	173938	P1212	3.175	11.7	6°	0.15	3.75	-	2.25	3	
90.351301	142531	P1616	3.5	16.0	0°	0.15	4.15	-	3.5	3	
90.351302	142486	P1616	3.5	16.0	8°	0.15	4.15	-	3.5	3	
90.351303	142526	P1616	3.5	16.0	12°	0.15	4.15	-	3.5	3	
90.351304	142511	P1616	5.0	16.0	0°	0.15	5.65	-	3.5	3	
90.351305	142541	P1616	5.0	16.0	8°	0.15	5.65	-	3.5	3	
90.351306	142457	P1616	5.0	16.0	12°	0.15	5.65	-	3.5	3	
90.351216	142556	P2525	4.0	25.0	0°	0.15	4.65	-	5.7	3	
90.351217	142546	P2525	4.0	25.0	8°	0.15	4.65	-	5.7	3	
90.351218	142579	P2525	4.0	25.0	12°	0.15	4.65	-	5.7	3	
90.351219	142538	P2525	5.0	25.0	8°	0.15	5.75	-	5.7	3	
90.351989	160907	P2525	6.0	25.0	8°	0.15	6.9	-	5.7	3	
90.351787	173939	P2525	6.35	25.0	8°	0.15	7.15	-	5.7	3	
90.351220	142582	P2525	6.5	25.0	0°	0.15	7.15	-	5.7	3	
90.351221	142610	P2525	6.5	25.0	8°	0.15	7.15	-	5.7	3	
90.351222	142574	P2525	6.5	25.0	12°	0.15	7.15	-	5.7	3	
90.351223	142558	P2525	8.0	25.0	0°	0.15	8.65	-	5.7	3	
90.351224	142578	P2525	8.0	25.0	8°	0.15	8.65	-	5.7	3	
90.351225	142588	P2525	8.0	25.0	12°	0.15	8.65	-	5.7	3	

Nutfräsen



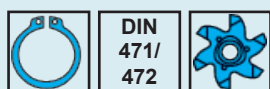
Art.-Nr.	Bestell-Nr.	Typ	A mm	D mm	α°	R mm	LP1 mm	Smax mm	Zähne- zahl	Preis
90.351333	142494	P1616	3.0	16.0	6°	0.15	3.53	3.5	6	
90.351788	173929	P1616	3.175	16.0	6°	0.05	3.74	3.5	6	
90.351334	142565	P1616	4.0	16.0	6°	0.15	4.65	3.5	6	
90.351335	142586	P1616	5.0	16.0	6°	0.15	5.65	3.5	6	
90.351789	171937	P1618	1.2	17.7	6°	0.10	4.0	4.0	6	
90.351790	171938	P1618	1.4	17.7	6°	0.10	4.0	4.0	6	
90.351336	171939	P1618	1.5	17.7	6°	0.10	3.9	4.0	6	
90.351791	173928	P1618	1.57	17.7	6°	0.10	3.9	4.0	6	
90.351792	171940	P1618	1.7	17.7	6°	0.10	4.0	4.0	6	
90.351337	171941	P1618	2.0	17.7	6°	0.10	3.9	4.0	6	
90.351793	171942	P1618	2.39	17.7	6°	0.15	4.0	4.0	6	
90.351338	171943	P1618	2.5	17.7	6°	0.15	3.9	4.0	6	
90.351339	168673	P2020	3.0	20.0	6°	0.15	3.65	4.2	6	
90.351340	168674	P2020	4.0	20.0	6°	0.15	4.65	4.2	6	
90.351341	142655	P2020	5.0	20.0	6°	0.15	5.65	4.2	6	
90.351794	171956	P2022	1.4	21.7	6°	0.10	5.0	5.0	6	
90.351342	171957	P2022	1.5	21.7	6°	0.10	5.0	5.0	6	
90.351795	173930	P2022	1.57	21.7	6°	0.10	5.0	5.0	6	
90.351796	171958	P2022	1.7	21.7	6°	0.10	5.0	5.0	6	
90.351343	171959	P2022	2.0	21.7	6°	0.10	5.0	5.0	6	
90.351797	171960	P2022	2.39	21.7	6°	0.15	5.0	5.0	6	
90.351344	171961	P2022	2.5	21.7	6°	0.15	5.0	5.0	6	
90.351345	171962	P2022	3.0	21.7	6°	0.15	5.0	5.0	6	
90.351798	171963	P2022	3.175	21.7	6°	0.15	5.0	5.0	6	
90.352611	182370	P2022	4.0	21.7	6°	0.15	5.0	5.0	6	
90.352612	187947	P2022	5.0	21.7	6°	0.15	6.0	5.0	6	
90.351346	142601	P2526	3.0	26.0	6°	0.15	3.65	6.2	6	
90.351799	173932	P2526	3.175	26.0	6°	0.15	3.7	6.2	6	
90.351347	142677	P2526	4.0	26.0	6°	0.15	4.65	6.2	6	
90.351348	142589	P2526	5.0	26.0	6°	0.15	6.9	6.2	6	
90.352613	162646	P2526	6.0	26.0	6°	0.15	7.15	6.2	6	
90.351800	173931	P2526	6.35	26.0	6°	0.15	6.95	6.2	6	
90.351349	142618	P2526	6.5	26.0	6°	0.15	7.15	6.2	6	
90.351350	171981	P2528	1.5	27.7	6°	0.10	4.9	6.8	6	
90.351351	171982	P2528	2.0	27.7	6°	0.10	4.9	6.8	6	
90.351801	171983	P2528	2.39	27.7	6°	0.15	4.9	6.8	6	
90.351352	171984	P2528	2.5	27.7	6°	0.15	4.9	6.8	6	
90.351353	171985	P2528	3.0	27.7	6°	0.15	4.9	6.8	6	
90.351802	171986	P2528	3.175	27.7	6°	0.15	5.0	6.8	6	

Nutfräsen kreuzverzahnt

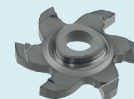
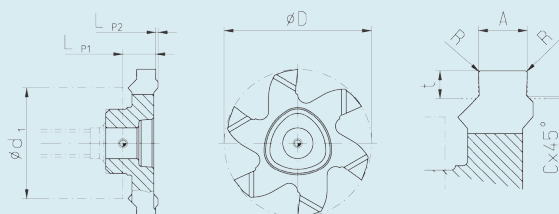


Art.-Nr.	Bestell-Nr.	Typ	A mm	D mm	α°	R mm	LP1 mm	Smax mm	Zähne- zahl	Preis
90.351803	171699	P1616	5.0	16.0	6°	0.15	5.65	3.5	6	
90.351804	171700	P2020	5.0	20.0	6°	0.15	5.65	4.2	6	
90.351805	163659	P2022	4.0	21.7	6°	0.15	5.0	5.0	6	
90.351990	187948	P2022	5.0	21.7	6°	0.15	6.0	5.0	6	
90.351806	171701	P2526	5.0	26.0	6°	0.15	6.9	6.2	6	
90.351807	171702	P2526	6.5	26.0	6°	0.15	7.15	6.2	6	
90.351808	177186	P2528	4.0	27.7	6°	0.15	5.9	6.8	6	
90.351809	177187	P2528	5.0	27.7	6°	0.15	5.9	6.8	6	

Sicherung



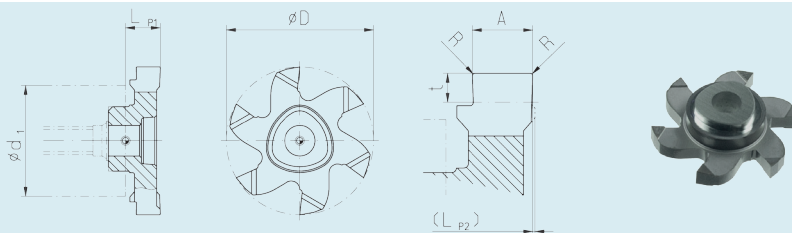
Mit Kantenbruch



Art.-Nr.	Bestell-Nr.	Typ	DIN Breite	D mm	$A'_{-0.03}$	t mm	Cx45° mm	R mm	LP1 mm	LP2 mm	Zähne- zahl	Preis
90.351357	142423	P1616	1.10	16.0	1.18	0.50	0.10	0.05	3.15	0.675	6	
90.351358	142528	P1616	1.30	16.0	1.38	0.85	0.15	0.05	3.15	0.675	6	
90.351359	142561	P1616	1.60	16.0	1.68	1.00	0.15	0.1	3.15	0.675	6	
90.351360	142562	P1616	1.85	16.0	1.93	1.25	0.20	0.1	3.15	0.675	6	
90.351361	168675	P2020	1.10	20.0	1.18	0.50	0.10	0.05	3.15	0.675	6	
90.351362	168676	P2020	1.30	20.0	1.38	0.85	0.15	0.05	3.15	0.675	6	
90.351363	168677	P2020	1.60	20.0	1.68	1.00	0.15	0.1	3.15	0.675	6	
90.351364	168678	P2020	1.85	20.0	1.93	1.25	0.20	0.1	3.15	0.675	6	
90.351365	171968	P2022	1.60	21.7	1.68	1.00	0.15	0.1	4.7	0.450	6	
90.351366	171969	P2022	1.85	21.7	1.93	1.25	0.20	0.1	4.7	0.450	6	
90.351367	171970	P2022	2.15	21.7	2.23	1.50	0.20	0.1	4.7	0.450	6	
90.351368	171971	P2022	2.65	21.7	2.73	1.50	0.20	0.2	4.8	0.350	6	
90.351369	142646	P2526	1.30	26.0	1.38	0.85	0.15	0.05	3.4	0.425	6	
90.351370	142660	P2526	1.60	26.0	1.68	1.00	0.15	0.1	3.4	0.425	6	
90.351371	142607	P2526	1.85	26.0	1.93	1.25	0.20	0.1	3.4	0.425	6	
90.351372	142591	P2526	2.15	26.0	2.23	1.50	0.20	0.1	3.4	0.425	6	
90.351373	142597	P2526	2.65	26.0	2.73	1.75	0.20	0.2	4.25	0.575	6	
90.351374	142661	P2526	3.15	26.0	3.23	1.75	0.20	0.2	4.25	0.575	6	
90.351991	142622	P2526	4.15	26.0	4.23	2.00	0.20	0.2	6.415	0.560	6	
90.351992	160893	P2526	4.15	26.0	4.23	2.50	0.20	0.2	6.415	0.560	6	

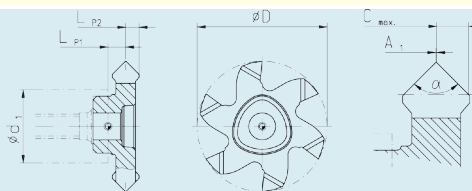
Sicherung

Ohne Kantenbruch



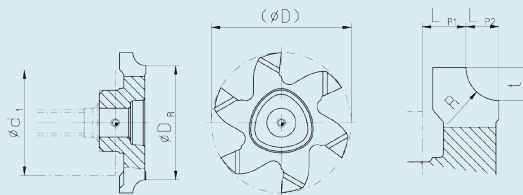
Art.-Nr.	Bestell-Nr.	Typ	DIN Breite	D mm	A ¹ _{-0.03}	t mm	R mm	LP1 mm	LP2 mm	Zähnezahl	Preis
90.351375	172125	P1210	0.90	9.6	0.98	1.20	0.05	3.25	0.1	3	
90.351376	171868	P1212	1.10	11.7	1.18	0.90	0.05	3.55	-	3	
90.351377	171869	P1212	1.30	11.7	1.38	1.10	0.05	3.55	-	3	
90.351378	171870	P1212	1.60	11.7	1.68	1.00	0.1	3.55	-	3	
90.351379	142548	P1616	1.10	16.0	1.18	0.90	0.05	3.45	-	6	
90.351380	142509	P1616	1.30	16.0	1.38	1.10	0.05	3.45	-	6	
90.351381	142533	P1616	1.60	16.0	1.68	1.25	0.1	3.45	-	6	
90.351382	142536	P1616	1.85	16.0	1.93	1.25	0.1	3.45	-	6	
90.351383	171945	P1618	1.10	17.7	1.18	0.90	0.05	4.00	-	6	
90.351384	171946	P1618	1.30	17.7	1.38	1.10	0.05	4.00	-	6	
90.351385	171947	P1618	1.60	17.7	1.68	1.25	0.1	3.90	-	6	
90.351386	171948	P1618	1.85	17.7	1.93	1.25	0.1	4.00	-	6	
90.351387	168679	P2020	1.10	20.0	1.18	0.90	0.05	3.65	-	6	
90.351388	168680	P2020	1.30	20.0	1.38	1.10	0.05	3.65	-	6	
90.351389	168681	P2020	1.60	20.0	1.68	1.25	0.1	3.65	-	6	
90.351390	168682	P2020	1.85	20.0	1.93	1.25	0.1	3.65	-	6	
90.351391	171964	P2022	1.60	21.7	1.68	1.25	0.1	5.00	-	6	
90.351392	171965	P2022	1.85	21.7	1.93	1.25	0.1	5.00	-	6	
90.351393	171966	P2022	2.15	21.7	2.23	1.75	0.1	5.00	-	6	
90.351394	171967	P2022	2.65	21.7	2.73	1.75	0.2	5.00	-	6	
90.351395	142598	P2526	1.30	26.0	1.38	1.10	0.05	3.65	-	6	
90.351396	142653	P2526	1.60	26.0	1.68	1.25	0.1	3.65	-	6	
90.351397	142616	P2526	1.85	26.0	1.93	1.25	0.1	3.65	-	6	
90.351398	142637	P2526	2.15	26.0	2.23	1.75	0.1	3.65	-	6	
90.351399	142662	P2526	2.65	26.0	2.73	1.75	0.2	3.65	-	6	
90.351400	142643	P2526	3.15	26.0	3.23	2.20	0.2	4.55	-	6	
90.351993	160906	P2526	4.15	26.0	4.23	2.50	0.2	6.80	-	6	

Entgraten



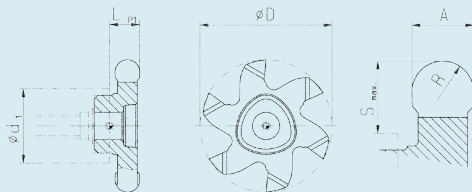
Art.-Nr.	Bestell-Nr.	Typ	D mm	A / P	Cmax x 45° mm	A1 mm	LP1 mm	LP2 mm	Zähnezahl	Preis
90.351283	171914	P1210	9.6	90°	1.2	0.1	2.125	1.525	3	
90.351284	171913	P1212	11.7	90°	1.5	0.1	2.125	1.525	3	
90.351285	142521	P1616	16.0	90°	1.9	0.1	2.650	1.950	6	
90.351286	171955	P1618	17.7	90°	1.3	0.1	2.650	1.450	6	
90.351287	168689	P2020	20.0	90°	1.9	0.1	3.150	2.675	6	
90.351288	171979	P2022	21.7	90°	1.6	0.1	2.950	2.150	6	
90.351289	142676	P2526	26.0	90°	2.1	0.1	2.750	2.075	6	

konkave Form



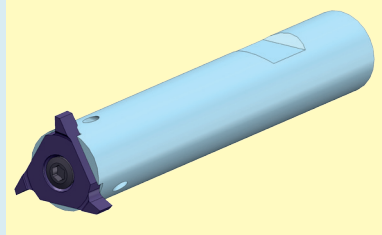
Art.-Nr.	Bestell-Nr.	Typ	D mm	DR mm	R mm	t mm	LP1 mm	LP2 mm	Zähne- zahl	Preis
90.351767	179425	P2526	26.0	25	0.5	0.5	3.15	0.5	6	
90.351768	179426	P2526	26.0	24	1.0	1.0	2.65	1.0	6	
90.351769	179427	P2526	26.0	23	1.5	1.5	3.15	1.5	6	
90.351770	177120	P2526	26.0	22	2.0	2.0	2.65	2.0	6	
90.351771	179428	P2526	26.0	21	2.5	2.5	2.15	2.5	6	
90.351772	177119	P2526	26.0	20	3.0	3.0	1.65	3.0	6	
90.351773	179690	P2526	26.0	18	4.0	4.0	2.55	4.0	6	
90.351774	179429	P2526	26.0	16	5.0	5.0	1.55	5.0	6	

konvexe Form

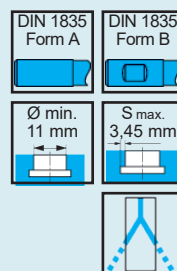
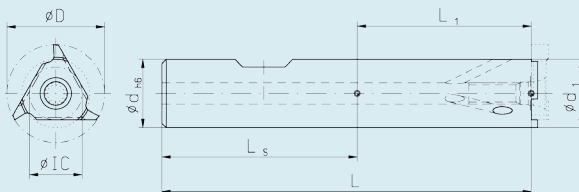


Art.-Nr.	Bestell-Nr.	Typ	D mm	A mm	R mm	LP1 mm	LP2 mm	Smax mm	Zähne- zahl	Preis
90.351994	160770	P1210	9.6	1.0	0.5	3.25	0.1	1.20	3	
90.351290	171924	P1210	9.6	2.2	1.1	3.30	0.05	1.20	3	
90.351995	160445	P1212	11.7	2.0	1.0	3.45	-	2.25	3	
90.351291	171874	P1212	11.7	2.2	1.1	3.55	-	2.25	3	
90.351996	160768	P1616	16.0	1.0	0.5	3.55	-	1.50	6	
90.351997	160431	P1616	16.0	2.0	1.0	3.55	-	2.00	6	
90.351998	160436	P1616	16.0	3.0	1.5	3.55	-	3.50	6	
90.351999	170360	P1616	16.0	4.0	2.0	4.65	-	3.50	6	
90.352600	178162	P1616	16.0	5.0	2.5	5.65	-	3.50	6	
90.352601	185358	P1618	17.7	1.0	0.5	3.95	-	2.50	6	
90.351292	171953	P1618	17.7	2.2	1.1	4.00	-	4.20	6	
90.351293	171975	P2022	21.7	2.0	1.0	4.90	-	5.00	6	
90.351294	171976	P2022	21.7	2.4	1.2	4.85	-	5.00	6	
90.351775	175888	P2022	21.7	2.6	1.3	4.95	-	5.00	6	
90.351295	171977	P2022	21.7	2.8	1.4	5.05	-	5.00	6	
90.351296	171978	P2022	21.7	3.0	1.5	4.90	-	5.00	6	
90.352602	182543	P2022	21.7	4.0	2.0	4.95	-	5.00	6	
90.352610	160909	P2526	26.0	2.0	1.0	4.90	-	6.20	6	
90.352603	178289	P2526	26.0	3.0	1.5	3.70	-	6.20	6	
90.352604	160444	P2526	26.0	4.0	2.0	4.65	-	6.20	6	
90.351776	175075	P2526	26.0	5.0	2.5	6.90	-	6.20	6	
90.352605	150085	P2526	26.0	6.0	3.0	6.90	-	6.20	6	
90.352606	160449	P2528	27.7	4.0	2.0	5.90	-	7.05	6	

TriMill Fräser

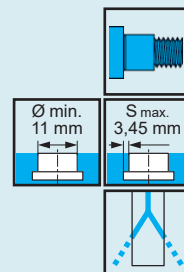
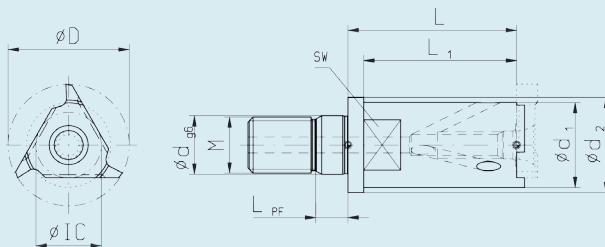
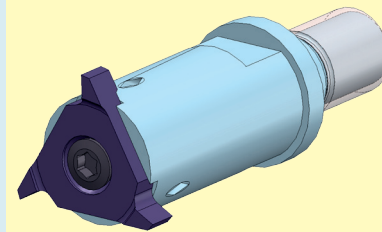


Zirkular-Fräskörper



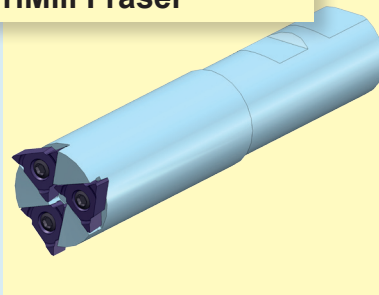
Art.-Nr.	Typ	Bestell-Nr.	Form	kleinster Bohr- ϕ	D	dh6	d1	Smax	L	L1	Schaft	Preis	WSP		
90.354001	04	123491	B	8	7.9	10	7.2	0.35	57.20	17.2	Stahl		04		
90.354002	03	123477	B	11	10.6	10	7.4	1.6	57.20	17.2	Stahl		03		
90.354003	"	123478	B	11	10.6	12	7.4	1.6	64.66	17.2	Stahl		"	107530	T6 IP 111705
90.354004	"	123479	A	11	10.6	12	7.4	1.6	64.66	17.2	Stahl		"		
90.354005	"	123480	B	11	10.6	10	7.4	1.6	74.20	34.2	HM		"		
90.354006	"	123489	A	11	10.6	8	8.0	1.25	77.66	-	HM		"		
90.354007	02	123445	B	20	17.5	12	12.0	2.6	74.05	28.7	Stahl		02		
90.354008	"	123446	B	20	17.5	16	12.0	2.6	78.60	28.7	Stahl		"		
90.354009	"	123447	A	20	17.5	16	12.0	2.6	78.60	28.7	Stahl		"		
90.354010	"	123448	B	20	17.5	12	12.0	2.6	108.70	63.7	HM		"	107547	T15 IP 111671
90.354011	"	123470	A	20	17.5	12	12.0	2.6	79.30	-	HM		"		
90.354012	"	123471	A	20	17.5	12	12.0	2.6	96.50	-	HM		"		
90.354013	"	123474	A	20	17.5	12	12.0	2.6	121.50	-	HM		"		
90.354014	01	123412	B	25	23.0	16	16.0	3.45	87.00	38.5	Stahl		01		
90.354015	"	123414	B	25	23.0	16	16.0	3.45	116.00	67.5	Stahl		"		
90.354016	"	123415	A	25	23.0	20	17.0	3.0	93.00	41.0	Stahl		"		
90.354017	"	170320	A	25	23.0	16	17.0	3.0	137.00	88.5	HM		"	107551	T20 IP 111594
90.354018	"	123416	B	25	23.0	16	17.0	3.0	137.00	88.5	HM		"		
90.354019	"	123440	A	25	23.0	16	16.0	3.45	111.00	-	HM		"		
90.354020	"	123441	A	25	23.0	16	16.0	3.45	148.50	-	HM		"		

TriMill Fräser

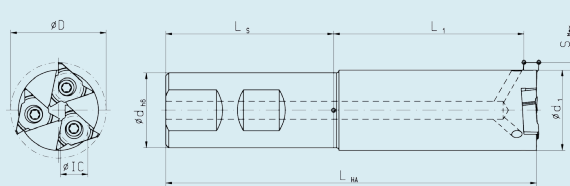


Art.-Nr.	Typ	Bestell-Nr.	kleinster Bohr- ϕ	D mm	dg6 mm	d1 mm	d2 mm	Smax mm	L mm	L1 mm	G	Preis	WSP		
90.354021	03	123481	11	10.6	6.5	7.4	10.0	1.60	22.66	13.66	M6		03	107530	111705
90.354022	02	123450	20	17.5	8.5	12.2	15.4	2.60	27.50	18.5	M8		02	107547	111671
90.354023	01	123419	25	23.0	10.5	16.1	18.0	3.45	32.00	29.0	M10		01	107551	111594

TriMill Fräser

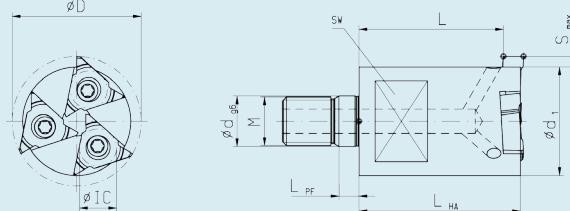
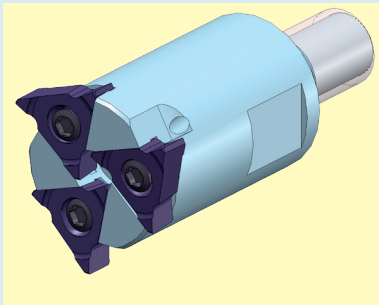


Zirkular-Fräskörper



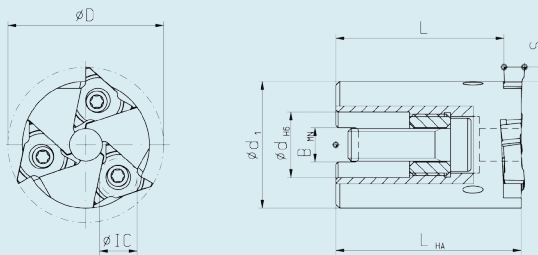
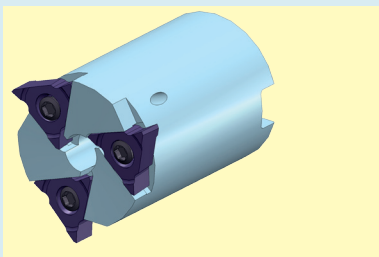
Typ 023	IC 9,2
Ø min. 2,6 mm	S max. 2,6 mm
DIN 1835 Form B	

Art.-Nr.	Typ	Bestell-Nr.	kleinster Bohr-Ø	D mm	dh6 mm	d1 mm	Smax mm	LHA mm	L mm	L1 mm	Zähne-zahl	Schaft	Preis	WSP	T15 IP
90.354024	023	123462	33	32	25	26.8	2.6	124.2	119.97	61.97	3	Stahl	023	107547	111671

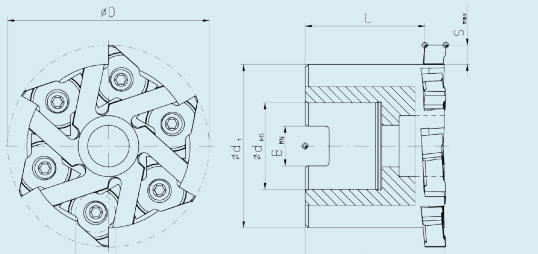
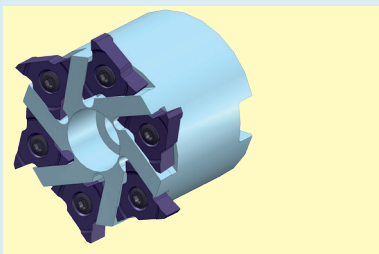


Typ 023	IC 9,2
Ø min. 3,3 mm	S max. 3,4 mm

Art.-Nr.	Typ	Bestell-Nr.	kleinster Bohr-Ø	D mm	dg6 mm	d1 mm	Smax mm	LHA mm	L mm	Zähne-zahl	G	Preis	WSP	T15 IP
90.354025	023	123465	33	32	12.5	24.3	3.8	40	34.97	3	M12	023	107547	111671

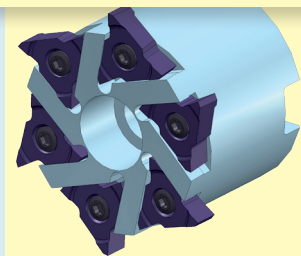


Typ 023	IC 9,2
Ø min. 4,0 mm	S max. 4,0 mm

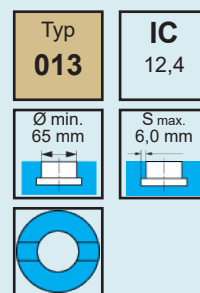
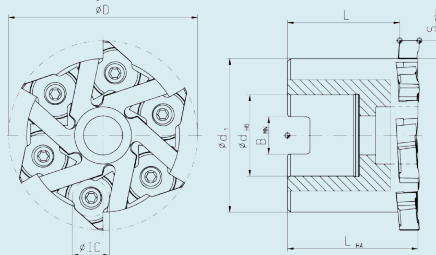


Art.-Nr.	Typ	Bestell-Nr.	kleinster Bohr-Ø	D mm	dh6 mm	d1 mm	Smax mm	LHA mm	L mm	BMN mm	Zähne-zahl	Preis	WSP	T15 IP
90.354026	023	123464	40	38	16	31	3.4	45.3	40.97	8.4	3	023	134984	107547 111671
90.354027	023	123461	55	50	22	42	3.9	39.3	34.97	10.4	6	023	107547	111671

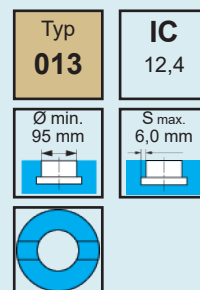
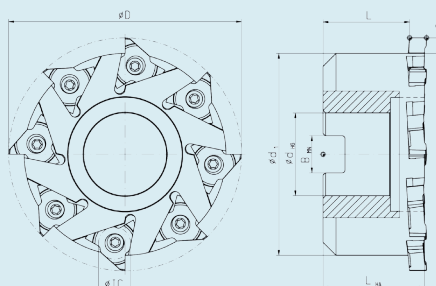
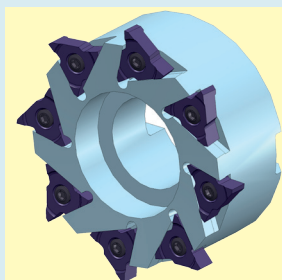
TriMill Fräser



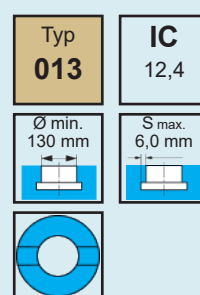
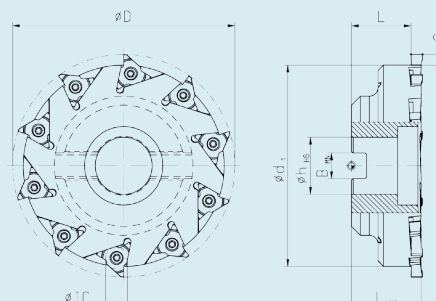
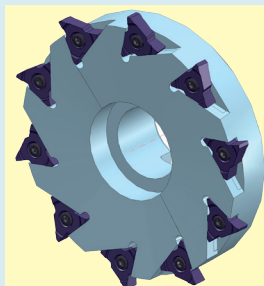
Zirkular-Fräskörper



Art.-Nr.	Typ	Bestell-Nr.	kleinster Bohr-Ø	D mm	dH6 mm	d1 mm	Smax mm	LHA mm	L mm	BMN mm	Zähnezahl	Preis	WSP	T20 IP
90.354028	013	123435	65	63	27	51	6	43.5	37.5	12.4	6	013	107551	111594



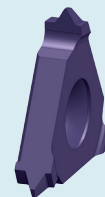
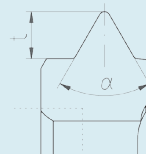
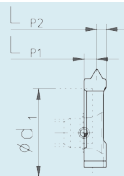
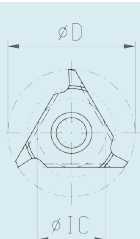
Art.-Nr.	Typ	Bestell-Nr.	kleinster Bohr-Ø	D mm	dH6 mm	d1 mm	Smax mm	LHA mm	L mm	BMN mm	Zähnezahl	Preis	WSP	T20 IP
90.354029	013	123436	95	90	32	78	6	39.2	33.5	14.4	8	013	107551	111594



Art.-Nr.	Typ	Bestell-Nr.	kleinster Bohr-Ø	D mm	dH6 mm	d1 mm	Smax mm	LHA mm	L mm	BMN mm	Zähnezahl	Preis	WSP	T20 IP
90.354030	013	134561	130	125	32	113	6	39.2	33.5	14.4	10	013	107551	111594

Gewinde

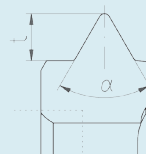
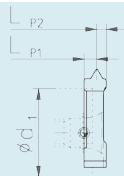
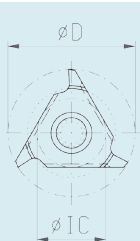
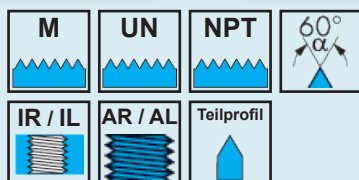
Vollprofil



Art.-Nr.	Bestell-Nr.	Typ	Steigung mm	D mm	LP1 mm	LP2 mm	t mm	Gewinde	Preis
90.354162	141613	03	1.0	10.6	1.64	0.7	0.578	>M12	
90.354163	141674	03	1.5	10.6	1.39	0.95	0.864	>M14	
90.354164	141647	03	2.0	10.6	2.00	1	1.159	>M16	
90.354165	141443	02	1.0	17.5	2.80	0.7	0.578		
90.354166	141482	02	1.5	17.5	2.55	0.95	0.864		
90.354167	141484	02	2.0	17.5	2.30	1.2	1.159		
90.354168	141514	02	2.5	17.5	2.05	1.45	1.444		
90.354169	141516	02	2.5	16.0	1.75	1.75	1.444	nur M20	
90.354170	141494	02	3.0	17.5	2.10	1.4	1.728		
90.354171	141317	01	1.0	23.0	3.30	0.7	0.578		
90.354172	141291	01	1.5	23.0	3.05	0.95	0.864		
90.354173	141312	01	2.0	23.0	2.80	1.2	1.159		
90.354174	141287	01	2.5	23.0	2.55	1.45	1.444		
90.354175	141339	01	3.0	23.0	2.30	1.7	1.728		
90.354176	141300	01	3.5	23.0	2.30	1.7	2.023		
90.354177	141347	01	4.0	23.0	2.30	1.7	2.308		
90.354178	141365	01	4.5	23.0	4.00	2.5	2.602		
90.354179	141342	01	5.0	23.0	4.00	2.5	2.887		
90.354180	141350	01	5.5	23.0	3.60	2.9	3.182		
90.354181	141369	01	6.0	23.0	3.20	3.3	3.467		

Gewinde

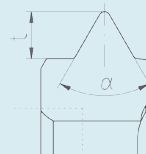
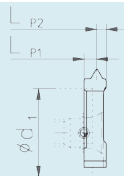
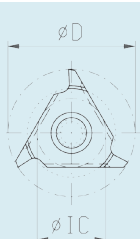
Teilprofil



Art.-Nr.	Bestell-Nr.	Typ	Steigung mm	D mm	LP1 mm	LP2 mm	G mm	tmax.	Preis
90.354182	141677	03	1-2.0	10.6	1.5	1.5	0.1	1.6	
90.354183	141528	02	1-3.5	17.5	1.59	1.91	0.1	2.15	
90.354184	141366	01	1-4.0	23.0	1.85	2.15	0.1	2.45	

Gewinde

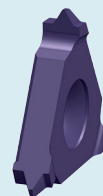
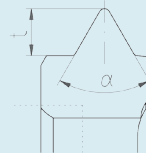
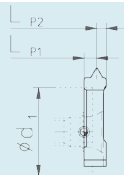
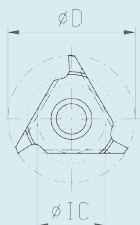
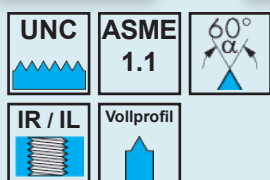
Vollprofil



Art.-Nr.	Bestell-Nr.	Typ	Gang/°	D mm	LP1 mm	LP2 mm	t mm	Gewinde	Preis
90.354185	141652	03	19	10.6	1.25	1.09	0.871	G 1/4"	
90.354186	141682	03	19	10.6	1.25	1.09	0.871	G 3/8"	
90.354187	141508	02	14	16.0	1.75	1.75	1.162	G 1/2"	
90.354188	141488	02	14	17.5	2.2	1.3	1.162		
90.354189	141522	02	11	17.5	1.9	1.6	1.494		
90.354190	160665	02	8	17.5	1.75	1.75	1.830	BSW 1"	
90.354191	161718	02	8	17.5	1.75	1.75	1.830	BSF	
90.354192	141381	01	11	23.0	2.4	1.6	1.494		

Gewinde

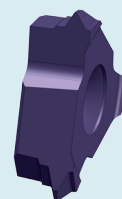
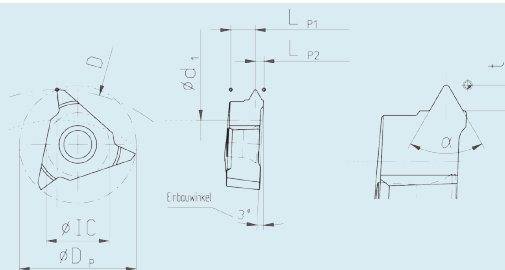
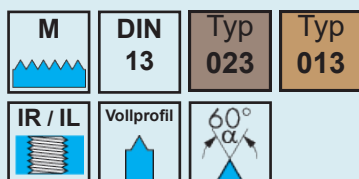
Vollprofil



Art.-Nr.	Bestell-Nr.	Typ	Gang/°	D mm	LP1 mm	LP2 mm	t mm	Gewinde	Preis
90.354193	149460	03	13	10.0	1.17	1.17	1.099	1/2-13	
90.354194	149204	03	11	10.6	1.17	1.17	1.349	5/8-11	
90.354195	149732	03	10	10.6	1.17	1.17	1.470	3/4-10	

Gewinde

Vollprofil



Art.-Nr.	Bestell-Nr.	Typ	Steigung mm	Dp mm	LP1 mm	LP2 mm	t mm	Preis
90.354196	142020	023	1.5	17.5	4.08	0.95	0.864	
90.354197	142003	023	2.0	17.5	3.83	1.2	1.159	
90.354198	141989	023	2.5	17.5	3.52	1.51	1.444	
90.354199	141988	023	3.0	17.5	3.33	1.7	1.728	
90.354200	142028	023	4.0	17.5	2.63	2.4	2.308	
90.354201	141998	023	4.5	17.5	2.53	2.5	2.602	
90.354202	142009	023	5.0	17.5	3.13	2.9	2.887	
90.354203	142032	023	5.5	17.5	2.7	3.33	3.128	
90.354204	142000	023	6.0	17.5	2.7	3.33	3.467	
90.354205	141920	013	1.5	23.0	5.58	0.95	0.864	
90.354206	141910	013	2.0	23.0	5.33	1.2	1.159	
90.354207	141935	013	2.5	23.0	5.02	1.51	1.444	
90.354208	141943	013	3.0	23.0	4.83	1.7	1.728	
90.354209	141961	013	3.5	23.0	4.83	1.7	2.023	
90.354210	141947	013	4.0	23.0	4.63	1.9	2.308	
90.354211	141964	013	4.5	23.0	4.03	2.5	2.602	
90.354212	141955	013	5.0	23.0	4.03	2.5	2.887	
90.354213	141976	013	6.0	23.0	3.23	3.3	3.467	
90.354214	150338	013	8.0	23.0	3.454	3.941	4.731	

Gewinde

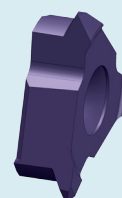
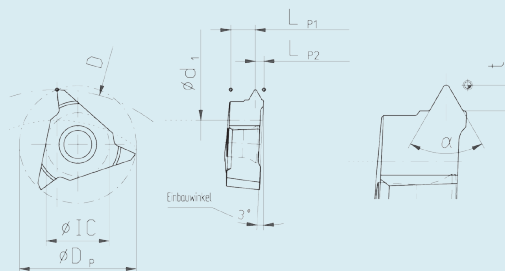
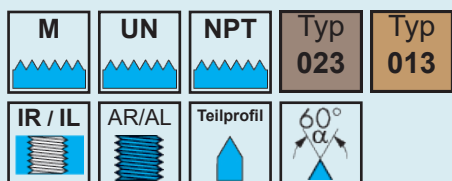
Vollprofil



Art.-Nr.	Bestell-Nr.	Typ	Gang/"	Dp mm	LP1 mm	LP2 mm	t mm	Preis
90.354219	142022	023	11	17.5	3.33	1.7	1.494	
90.354220	141941	013	11	23.0	4.14	2.39	1.494	

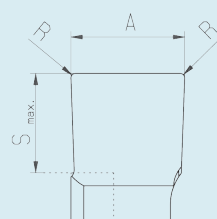
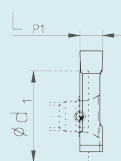
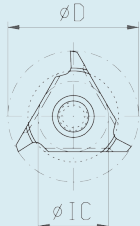
Gewinde

Teilprofil



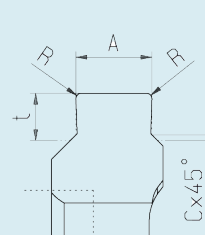
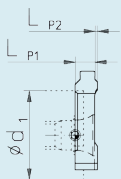
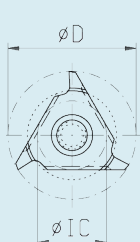
Art.-Nr.	Bestell-Nr.	Typ	Steigung mm	Dp mm	LP1 mm	LP2 mm	t mm	Gewinde	Preis
90.354215	141996	023	1-3.5	17.5	3.28	1.75	0.10	2.15	
90.354216	142010	023	3-6.0	17.5	2.7	3.33	0.25	3.75	
90.354217	141969	013	1-3.0	23.0	4.88	1.65	0.10	2.15	
90.354218	141951	013	3.5-6	23.0	2.8	3.73	0.40	4.75	

Nutenfräsen



Art.-Nr.	Bestell-Nr.	Typ	A mm	D mm	IC	LP1 mm	S max mm	R mm	Preis
90.354031	141719	04	2.0	7.9	5.5	2.34	0.35	0.10	
90.354032	141642	03	2.34	10.6	5.5	2.36	1.60	0.15	
90.354033	141669	03	3.0	10.6	5.5	3.02	1.60	0.15	
90.354034	141533	02	3.5	17.5	9.2	3.52	2.60	0.15	
90.354035	141535	02	5.0	17.5	9.2	5.03	2.60	0.15	
90.354036	141544	02	6.0	17.5	9.2	6.02	2.60	0.15	
90.354037	141361	01	4.0	23.0	12.4	4.03	3.45	0.15	
90.354038	141396	01	6.5	23.0	12.4	6.53	3.45	0.15	

Sicherungsringe

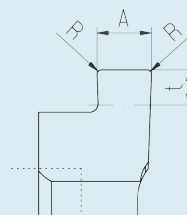
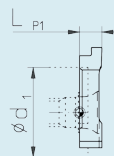
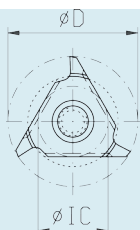


Art.-Nr.	Bestell-Nr.	Typ	DIN H13	D mm	E mm	LP1 mm	LP2 mm	A-0.03 mm	t mm	Cx45° mm	R mm	Preis
90.354039	141556	03	1.10	10.6	5.5	2.13	0.21	1.18	0.50	0.1	0.05	
90.354040	141427	02	1.10	17.5	9.2	3.1	0.4	1.18	0.50	0.1	0.05	
90.354041	141387	02	1.30	17.5	9.2	3.1	0.4	1.38	0.85	0.15	0.05	
90.354042	141399	02	1.60	17.5	9.2	3.1	0.4	1.68	1.00	0.15	0.1	
90.354043	141409	02	1.85	17.5	9.2	3.1	0.4	1.93	1.25	0.2	0.1	
90.354044	141333	02	2.15	17.5	9.2	3.1	0.4	2.23	1.50	0.2	0.1	
90.354045	141388	02	2.65	17.5	9.2	3.1	0.4	2.73	1.50	0.2	0.2	
90.354046	141161	01	1.10	23.0	12.4	3.6	0.4	1.18	0.50	0.1	0.05	
90.354047	141209	01	1.30	23.0	12.4	3.6	0.4	1.38	0.70	0.15	0.05	
90.354048	141199	01	1.30	23.0	12.4	3.6	0.4	1.38	0.85	0.15	0.1	
90.354049	141237	01	1.60	23.0	12.4	3.6	0.4	1.68	0.85	0.15	0.1	
90.354050	141180	01	1.60	23.0	12.4	3.6	0.4	1.68	1.00	0.15	0.1	
90.354051	141193	01	1.85	23.0	12.4	3.6	0.4	1.93	1.25	0.2	0.1	
90.354052	141215	01	2.15	23.0	12.4	3.6	0.4	2.23	1.50	0.2	0.1	
90.354053	141222	01	2.65	23.0	12.4	3.6	0.4	2.73	1.50	0.2	0.2	
90.354054	141048	01	2.65	23.0	12.4	3.6	0.4	2.73	1.75	0.2	0.2	
90.354055	141186	01	3.15	23.0	12.4	3.6	0.4	3.23	1.75	0.2	0.2	
90.354056	141212	01	4.15	23.0	12.4	5.5	1.0	4.23	2.00	0.2	0.2	

Sicherungsringe



DIN
471/
472

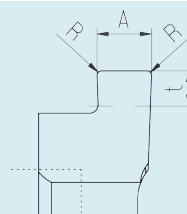
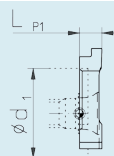
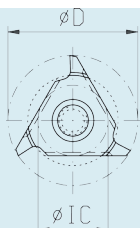


Art.-Nr.	Bestell-Nr.	Typ	DIN H13	D mm	IC mm	LP1 mm	A-0.03 mm	t mm	R mm	Preis
90.354057	141726	04	0.90	7.9	5.5	2.34	0.98	0.3	0.05	
90.354058	141611	03	0.90	10.6	5.5	2.34	0.98	0.7	0.05	
90.354059	141567	03	1.10	10.6	5.5	2.34	1.18	0.9	0.05	
90.354060	141609	03	1.30	10.6	5.5	2.34	1.38	1.1	0.05	
90.354061	141630	03	1.60	10.6	5.5	2.34	1.68	1.25	0.1	
90.354062	141574	03	1.85	10.6	5.5	2.34	1.93	1.25	0.1	
90.354063	141416	02	0.90	17.5	9.2	3.5	0.98	0.7	0.05	
90.354064	141435	02	1.10	17.5	9.2	3.5	1.18	0.9	0.05	
90.354065	141431	02	1.30	17.5	9.2	3.5	1.38	1.1	0.05	
90.354066	141454	02	1.60	17.5	9.2	3.5	1.68	1.25	0.1	
90.354067	141436	02	1.85	17.5	9.2	3.5	1.93	1.25	0.1	
90.354068	141437	02	2.15	17.5	9.2	3.5	2.23	1.75	0.1	
90.354069	141477	02	2.65	17.5	9.2	3.5	2.73	1.75	0.2	
90.354070	141440	02	3.15	17.5	9.2	3.5	3.23	2.2	0.2	
90.354071	141254	01	0.90	23.0	12.4	4.0	0.98	0.7	0.05	
90.354072	141245	01	1.10	23.0	12.4	4.0	1.18	0.9	0.05	
90.354073	141261	01	1.30	23.0	12.4	4.0	1.38	1.1	0.05	
90.354074	141255	01	1.60	23.0	12.4	4.0	1.68	1.25	0.1	
90.354075	141269	01	1.85	23.0	12.4	4.0	1.93	1.25	0.1	
90.354076	141258	01	2.15	23.0	12.4	4.0	2.23	1.75	0.1	
90.354077	141264	01	2.65	23.0	12.4	4.0	2.73	1.75	0.2	
90.354078	141293	01	3.15	23.0	12.4	4.0	3.23	2.2	0.2	
90.354079	141305	01	4.15	23.0	12.4	6.5	4.23	2.5	0.2	

O-Ringe

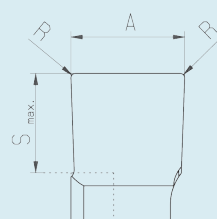
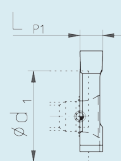
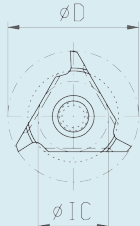


DIN ISO
3601-2



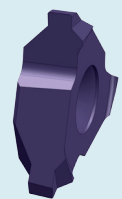
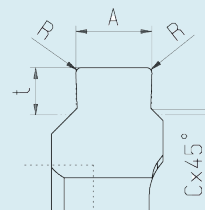
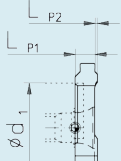
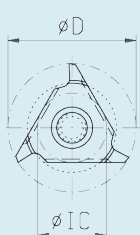
Art.-Nr.	Bestell-Nr.	Typ	DIN Breite	D mm	IC	LP1 mm	LP2 mm	A-0.03 mm	t mm	R1 mm	R2 mm	Preis
90.354080	141654	03	1.80	10.6	5.5	2.6	0.4	2.28	1.45	0.2	0.2	
90.354081	141510	02	1.80	17.5	9.2	3.0	0.5	2.28	1.45	0.2	0.2	
90.354082	141470	02	2.65	17.5	9.2	4.5	0.5	3.08	2.3	0.3	0.2	
90.354083	141236	01	1.80	23.0	12.4	3.5	0.5	2.28	1.45	0.2	0.2	
90.354084	141277	01	2.65	23.0	12.4	3.5	0.5	3.08	2.3	0.3	0.2	
90.354085	141306	01	3.55	23.0	12.4	5.5	1.0	4.08	3.1	0.4	0.2	

Nutenfräsen



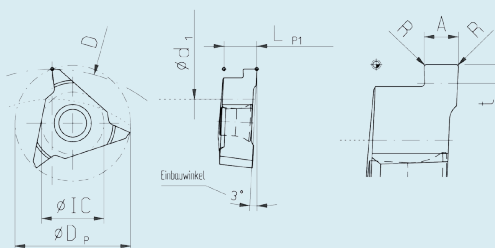
Art.-Nr.	Bestell-Nr.	Typ	A mm	Dp mm	IC	LP1 mm	S max mm	R mm	Preis
90.354086	142060	023	5.0	17.5	9.2	5.03	4.0	0.15	
90.354087	141972	013	6.5	23.0	12.4	6.53	6.0	0.15	

Sicherungsringe



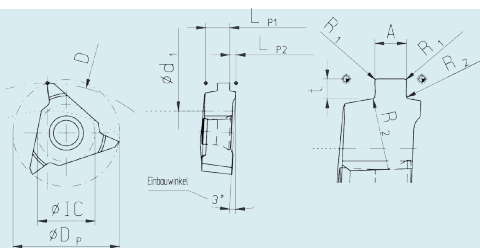
Art.-Nr.	Bestell-Nr.	Typ	DIN H13	Dp mm	E mm	LP1 mm	LP2 mm	A-0.03 mm	t mm	Cx45° mm	R mm	Preis
90.354088	141946	023	1.85	17.5	9.2	3.73	1.3	1.93	1.25	0.2	0.1	
90.354089	141949	023	2.15	17.5	9.2	3.73	1.3	2.23	1.5	0.2	0.1	
90.354090	141997	023	2.65	17.5	9.2	3.73	1.3	2.73	1.5	0.2	0.2	
90.354091	141970	023	2.65	17.5	9.2	3.73	1.3	2.73	1.75	0.2	0.2	
90.354092	141993	023	3.15	17.5	9.2	4.23	0.8	3.23	1.75	0.2	0.2	
90.354093	141973	023	4.15	17.5	9.2	5.03	1.0	4.23	2.5	0.2	0.2	
90.354094	141914	013	1.85	23.0	12.4	5.2	1.33	1.93	1.25	0.2	0.1	
90.354095	141892	013	2.15	23.0	12.4	5.2	1.33	2.23	1.5	0.2	0.1	
90.354096	141915	013	2.65	23.0	12.4	5.2	1.33	2.73	1.5	0.2	0.2	
90.354097	141907	013	2.65	23.0	12.4	5.2	1.33	2.73	1.75	0.2	0.2	
90.354098	141924	013	3.15	23.0	12.4	5.2	1.33	3.23	1.75	0.2	0.2	
90.354099	141905	013	4.15	23.0	12.4	5.2	1.33	4.23	2.0	0.2	0.2	
90.354100	141927	013	4.15	23.0	12.4	5.2	1.33	4.23	2.5	0.2	0.2	

Sicherungsringe



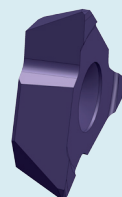
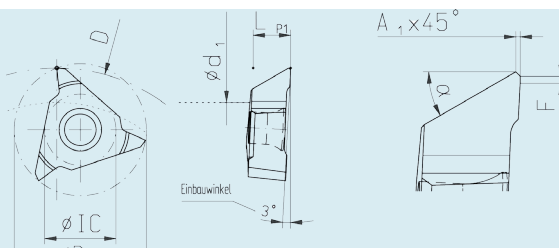
Art.-Nr.	Bestell-Nr.	Typ	DIN H13	D mm	IC mm	LP1 mm	A-0.03 mm	t mm	R mm	Preis
90.354101	141994	023	1.85	17.5	9.2	5.03	1.93	1.25	0.1	
90.354102	141980	023	2.15	17.5	9.2	5.03	2.23	1.75	0.1	
90.354103	141968	023	2.65	17.5	9.2	5.03	2.73	1.75	0.2	
90.354104	142014	023	3.15	17.5	9.2	5.03	3.23	2.2	0.2	
90.354105	141937	013	2.15	23.0	12.4	6.53	2.23	1.75	0.1	
90.354106	141925	013	2.65	23.0	12.4	6.53	2.73	1.75	0.2	
90.354107	141930	013	3.15	23.0	12.4	6.53	3.23	2.2	0.2	
90.354108	141934	013	4.15	23.0	12.4	6.53	4.23	2.5	0.2	
90.354109	141932	013	5.15	23.0	12.4	6.53	5.26	3.5	0.2	

O-Ringe



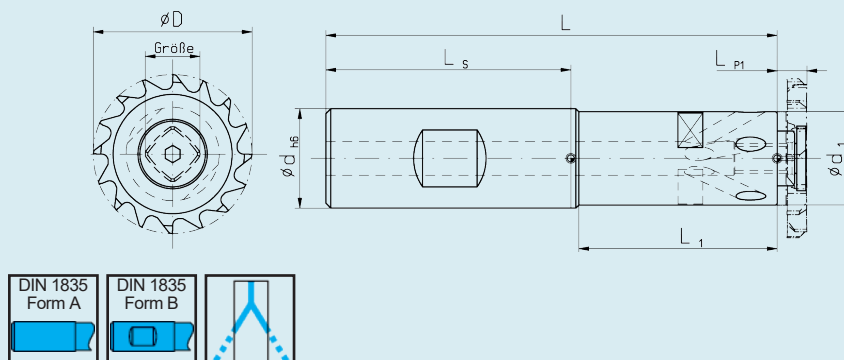
Art.-Nr.	Bestell-Nr.	Typ	DIN Breite	D mm	IC mm	LP1 mm	LP2 mm	A-0.03 mm	t mm	R1 mm	R2 mm	Preis
90.354110	142012	023	1.8	17.5	9.2	4.03	1.0	2.28	1.45	0.3	0.2	
90.354111	142019	023	2.65	17.5	9.2	4.03	1.0	3.08	2.3	0.3	0.2	
90.354112	141919	013	2.65	23.0	12.4	5.5	1.03	3.08	2.3	0.3	0.2	
90.354113	141916	013	3.55	23.0	12.4	5.5	1.03	4.08	3.1	0.3	0.2	

Planfräsen



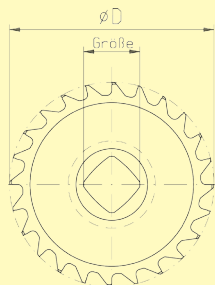
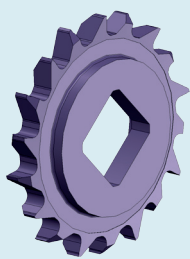
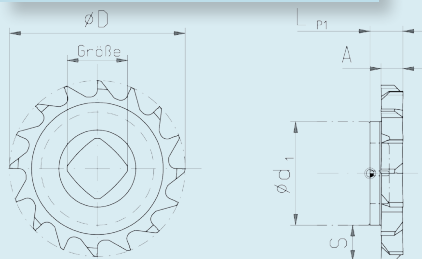
Art.-Nr.	Bestell-Nr.	Typ	Dp mm	IC mm	LP1 mm	A1x45° mm	F mm	a mm	Preis
90.354114	149516	023	17.5	9.2	5.0	0.3	0.5	25°	
90.354115	149472	013	23.0	12.4	6.5	0.3	0.5	28°	

Grundhalter

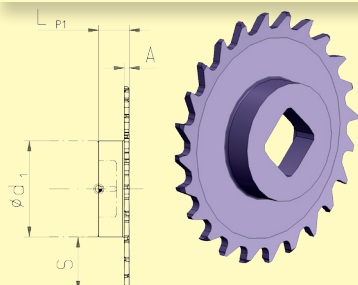


Art.-Nr.	Bestell-Nr.	Typ	dh6 mm	DIN	d1	L	L ₁	Preis	Spann-schraube	Schrau-ben-dreher	Grösse
90.351566	163700	09	20	1835 B	16.8	86	35	-	-	178297	SW 4
90.351625	160049	09	20	1835 A	16.8	86	35	-	-	-	-
90.351568	163701	11	20	1835 B	18.8	91	40	163843	178296	SW 3	SW 3
90.351624	160050	11	20	1835 A	18.8	91	40	-	-	-	-
90.351570	163702	13	25	1835 B	21.6	105	45	163844	178297	SW 4	SW 4
90.351626	160051	13	25	1835 A	21.6	105	45	-	-	-	-

Frässciben



Frässciben

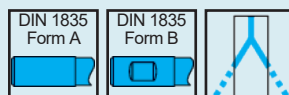
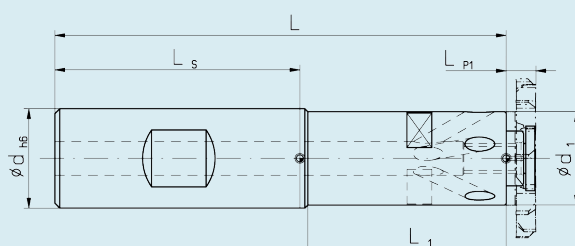
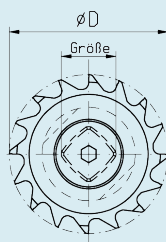


Art.-Nr.	Bestell-Nr.	Typ	A mm	S max. mm	Grösse Ø	L _{P1}	Zähne-zahl	Lieferbar	Preis
90.351486	164440	13	2.0	5.2	32	6	16	a.A.	
90.351487	164402	11	2.0	6.6	32	6	16	Lg	
90.351496	164441	13	3.0	5.2	32	6	16	a.A.	
90.351497	164403	11	3.0	6.6	32	6	16	Lg	
90.351506	164404	13	4.0	5.2	32	6	16	Lg	
90.351507	164442	11	4.0	6.6	32	6	16	a.A.	
90.351516	164405	13	5.0	5.2	32	6	16	Lg	
90.351517	164443	11	5.0	6.6	32	6	16	a.A.	
90.351526	164430	11	1.0	6.6	32	6	18	a.A.	379.00
90.351527	164400	9	1.0	7.6	32	6	18	Lg	371.00
90.351536	164431	11	1.5	6.6	32	6	18	a.A.	387.00
90.351537	164401	9	1.5	7.6	32	6	18	Lg	379.00

Speziell für Aluminiumbearbeitung:

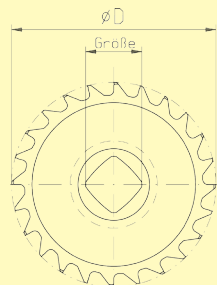
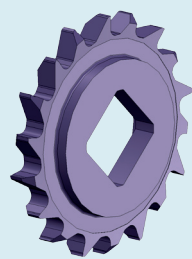
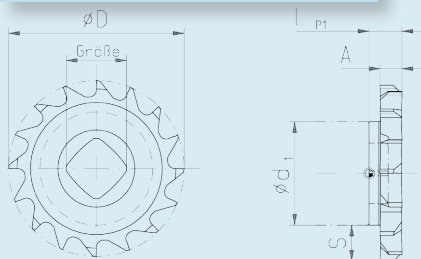
90.351546	179693	9	1.0	7.6	32	6	16	Lg	
90.351547	179698	9	1.5	7.6	32	6	16	Lg	

Grundhalter

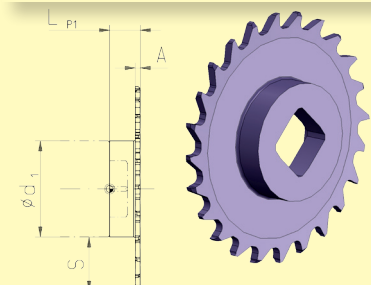


Art.-Nr.	Bestell-Nr.	Typ	dh6 mm	DIN	d1	L	L ₁	Preis	Spann-schraube	Spann-scheibe	Schrau-ben-dreher	Grösse
90.351568	163701	11	20	1835 B	18.8	91	40		163843	-	178296	SW 3
90.351624	160050	11	20	1835 A	18.8	91	40					
90.351570	163702	13	25	1835 B	21.6	105	45		163844	-	178297	SW 4
90.351626	160051	13	25	1835 A	21.6	105	45					
90.351572	163703	16	25	1835 B	26.0	110	50		163850	175027	178296	SW 3
90.351627	160052	16	25	1835 A	26.0	110	50					

DeepMill Frässccheiben



PolySaw Frässccheiben

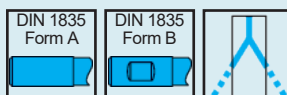
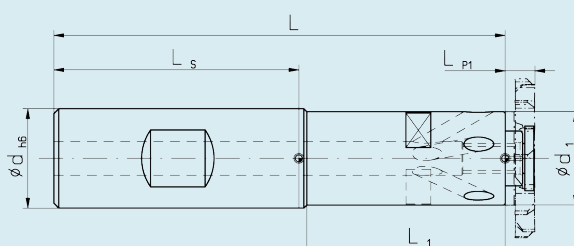
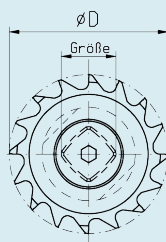


Art.-Nr.	Bestell-Nr.	Typ	A mm	S max. mm	Grösse Ø	LP1	Zähne-zahl	Lieferbar	Preis
90.351488	164444	16	2.0	7.0	40	6	18	a.A.	
90.351489	164408	13	2.0	9.2	40	6	18	Lg	
90.351498	164445	16	3.0	7.0	40	6	18	a.A.	
90.351499	164409	13	3.0	9.2	40	6	18	Lg	
90.351508	164410	16	4.0	7.0	40	6	18	Lg	
90.351509	164446	13	4.0	9.2	40	6	18	a.A.	
90.351518	164411	16	5.0	7.0	40	6	18	Lg	
90.351519	164447	13	5.0	9.2	40	6	18	a.A.	
90.351556	164432	13	1.0	9.2	40	6	24	a.A.	
90.351557	164406	11	1.0	10.6	40	6	24	Lg	
90.351528	164433	13	1.5	9.2	40	6	24	a.A.	
90.351529	164407	11	1.5	10.5	40	6	24	Lg	

Speziell für Aluminiumbearbeitung:

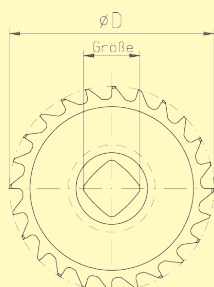
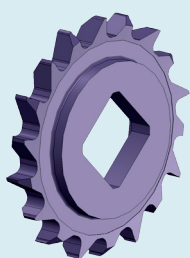
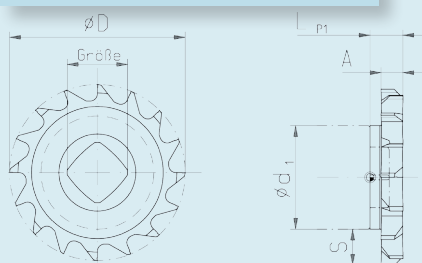
90.351538	179694	11	1.0	10.6	40	6	20	Lg	
90.351539	179699	11	1.5	10.6	40	6	20	Lg	

Grundhalter

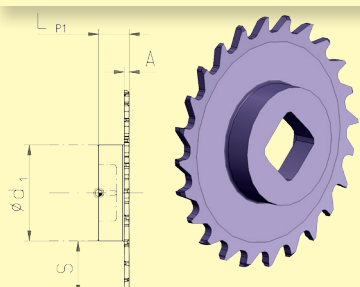


Art.-Nr.	Bestell-Nr.	Typ	dh6 mm	DIN	d1	L	L ₁	Preis	Spann-schraube	Spann-scheibe	Schrauben-dreher	Grösse
90.351570	163702	13	25	1835 B	21.6	105	45		163844	-	178297	SW 4
90.351626	160051	13	25	1835 A	21.6	105	45					
90.351572	163703	16	25	1835 B	26.0	110	50		163850	175027	178296	SW 3
90.351627	160052	16	25	1835 A	26.0	110	50					
90.351574	163704	19	32	1835 B	30.0	122	55		163848	163845	178296	SW 3
90.351628	160053	19	32	1835 A	30.0	122	55					

DeepMill Frässccheiben



PolySaw Frässccheiben

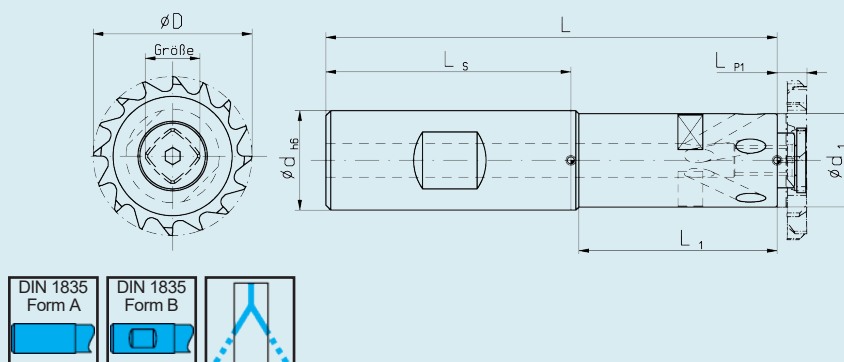


Art.-Nr.	Bestell-Nr.	Typ	A mm	S max. mm	Grösse Ø	LP1	Zähne-zahl	Lieferbar	Preis
90.351490	164448	19	2.0	10.0	50	6	24	a.A.	
90.351491	164414	16	2.0	12.0	50	6	24	Lg	
90.351500	164449	19	3.0	10.0	50	6	24	a.A.	
90.351501	164415	16	3.0	12.0	50	6	24	Lg	
90.351510	164416	19	4.0	10.0	50	6	24	Lg	
90.351511	164450	16	4.0	12.0	50	6	24	a.A.	
90.351520	164417	19	5.0	10.0	50	6	24	Lg	
90.351521	164451	16	5.0	12.0	50	6	24	a.A.	
90.351548	164434	16	1.0	12.0	50	6	32	a.A.	
90.351549	164412	13	1.0	14.2	50	6	32	Lg	
90.351558	164435	16	1.5	12.0	50	6	32	a.A.	
90.351559	164413	13	1.5	14.2	50	6	32	Lg	

Speziell für Aluminiumbearbeitung:

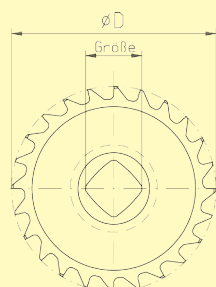
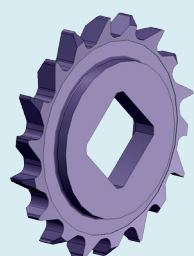
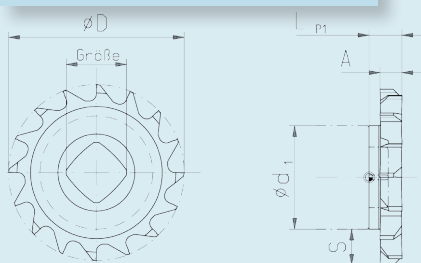
90.351530	179695	13	1.0	14.2	50	6	20	Lg	
90.351531	179700	13	1.5	14.2	50	6	20	Lg	

Grundhalter

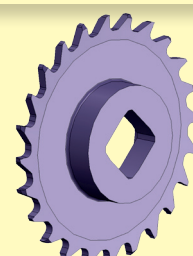


Art.-Nr.	Bestell-Nr.	Typ	dh6 mm	DIN	d1	L	L ₁	Preis	Spann-schraube	Spann-scheibe	Schrau-ben-dreher	Grösse
90.351572	163703	16	25	1835 B	26.0	110	50		163850	175027	178296	SW 3
90.351627	160052	16	25	1835 A	26.0	110	50					
90.351574	163704	19	32	1835 B	30.0	122	55		163848	163845	178296	SW 3
90.351628	160053	19	32	1835 A	30.0	122	55					
90.351576	163705	25	32	1835 B	38.0	127	60		163849	163846	178297	SW 4
90.351629	160054	25	32	1835 A	38.0	127	60					

DeepMill Frässcheiben



PolySaw Frässcheiben

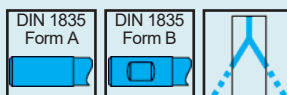
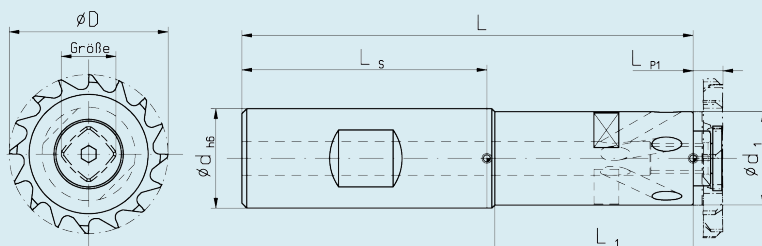


Art.-Nr.	Bestell-Nr.	Typ	A mm	S max. mm	Grösse Ø	L _{P1}	Zähne-zahl	Lieferbar	Preis
90.351492	164452	25	2.0	12.4	63	6	24	a.A.	
90.351494	164420	19	2.0	16.5	63	6	24	Lg	
90.351502	164453	25	3.0	12.4	63	6	24	a.A.	
90.351504	164421	19	3.0	16.5	63	6	24	Lg	
90.351512	164422	25	4.0	12.4	63	6	24	Lg	
90.351514	164454	19	4.0	16.5	63	6	24	a.A.	
90.351522	164423	25	5.0	12.4	63	6	24	Lg	
90.351524	164455	19	5.0	16.5	63	6	24	a.A.	
90.351637	164436	19	1.0	16.5	63	6	40	a.A.	
90.351532	164418	16	1.0	18.5	63	6	40	Lg	
90.351533	164437	19	1.5	16.5	63	6	40	a.A.	
90.351636	164419	16	1.5	18.5	63	6	40	Lg	

Speziell für Aluminiumbearbeitung:

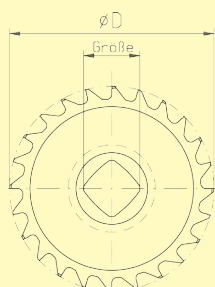
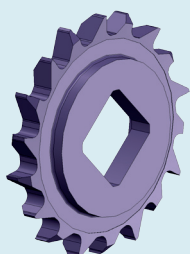
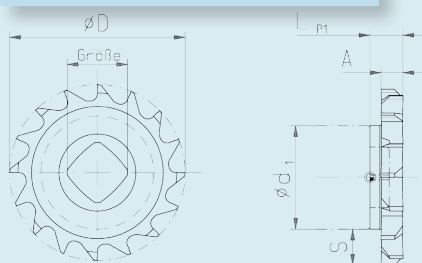
90.351540	179696	16	1.0	18.5	63	6	24	Lg	
90.351541	179701	16	1.5	18.5	63	6	24	Lg	

Grundhalter

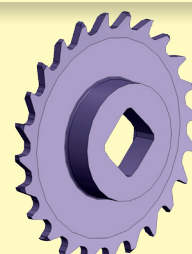
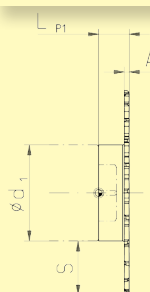


Art.-Nr.	Bestell-Nr.	Typ	dh6 mm	DIN	d1	L	L ₁	Preis	Spann-schraube	Spann-scheibe	Schrau-ben-dreher	Grösse
90.351574	163704	19	32	1835 B	30.0	122	55		163848	163845	178296	SW 3
90.351628	160053	19	32	1835 A	30.0	122	55		"	"	"	"
90.351576	163705	25	32	1835 B	38.2	127	60		163849	163846	178297	SW 4
90.351629	160054	25	32	1835 A	38.2	127	60		"	"	"	"
90.351578	163706	35	32	1835 B	49.0	132	65			163847	178297	SW 4
90.356000	160055	35	32	1835 A	49.0	132	65			"	"	"

DeepMill Frässcheiben



PolySaw Frässcheiben



Art.-Nr.	Bestell-Nr.	Typ	A mm	S max. mm	Grösse Ø	LP1	Zähne-zahl	Lieferbar	Preis
90.351493	164456	35	2.0	15.5	80	6	24	a.A.	
90.351495	164426	25	2.0	20.9	80	6	24	Lg	
90.351503	164457	35	3.0	15.5	80	6	24	a.A.	
90.351505	164427	25	3.0	20.9	80	6	24	Lg	
90.351513	164428	35	4.0	15.5	80	6	24	Lg	
90.351515	164458	25	4.0	20.9	80	6	24	a.A.	
90.351523	164429	35	5.0	15.5	80	6	24	Lg	
90.351525	164459	25	5.0	20.9	80	6	24	a.A.	
90.351550	164438	25	1.0	20.9	80	6	40	a.A.	
90.351551	164424	19	1.0	25.0	80	6	40	Lg	
90.351560	164439	25	1.5	20.9	80	6	40	a.A.	
90.351561	164425	19	1.5	25.0	80	6	40	Lg	

Speziell für Aluminiumbearbeitung:

90.351542	179697	19	1.0	18.5	80	6	24	Lg	
90.351543	179702	19	1.5	18.5	80	6	24	Lg	

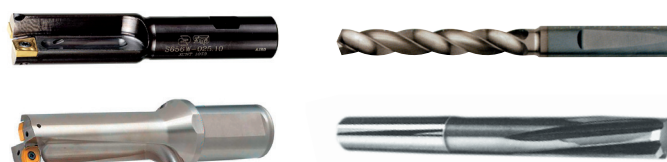
Drehen *Tournage*



Fräsen *Fraisage*



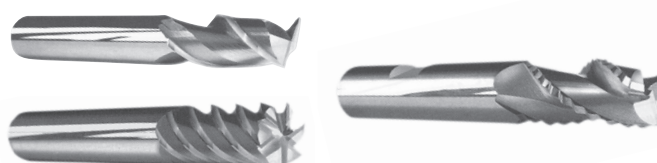
Bohren *Perçage*



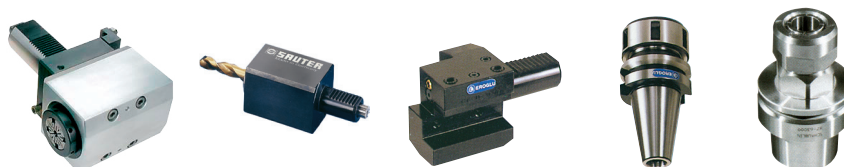
Wendeplatten *Plaquettes*



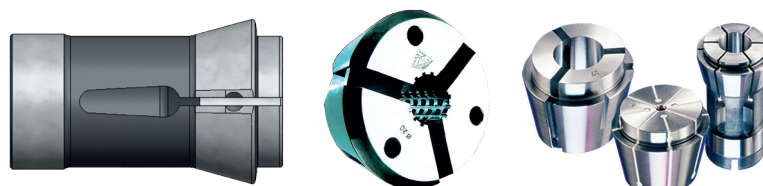
Vollhartmetall-, Pulver-HSS- und HSS-Werkzeuge *Outils en carbure monobloc, HSS et HSS fritté*



Werkzeugaufnahmen *Porte-outils*



Spannmittel *Moyen de serrage*



Geräte *Appareils*

