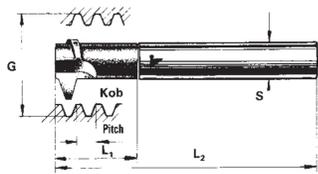


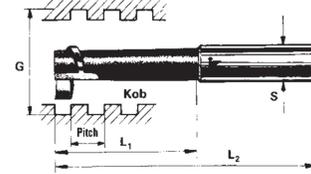
# TRG - draaibitels voor trapezium schroefdraad (Kobalt/VHM)

## FLG - draaibitels voor vierkante schroefdraad (Kobalt/VHM)

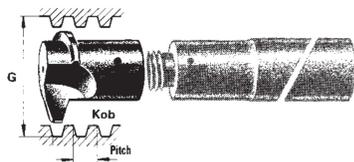
TRG nos. 0-2R



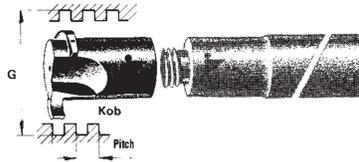
FLG nos. 0-2R



Heads: TRG nos. 3-12R  
Shanks see page 12



Heads: FLG nos. 3-12R  
Shanks see page 12



How to order (example): 5 TRG-4x3-R-Kob.  
5 FLG-0x2-R-Kob.

Thread Pitch	Range of Ø G	Size TRG or FLG	Code number for tools for righthand threads during forward movement (for lefthand threads during forward movement replace "R" by "L")	Availability TRG								Availability FLG								Ø S-h7 of shank	Thread	Leng L1	
				"R"				"L"				"R"				"L"							
mm	mm		TRG	Kob	TiN	K10	P30	Kob	TiN	K10	P30	FLG	Kob	TiN	K10	P30	Kob	TiN	K10	P30	mm	mm	
2	14-10	0	TRG-0x2-R...	●	○	×	×	●	○	×	×	FLG-0x2-R...	●	○	×	×	●	○	×	×	8	—	20
2	22-14	2	TRG-2x2-R...	●	○	×	×	●	○	×	×	FLG-2x2-R...	●	○	×	×	●	○	×	×	8	—	—
2	45-20	3	TRG-3x2-R...	●	○	×	×	●	○	×	×	FLG-3x2-R...	●	○	×	×	●	○	×	×	8	M6	—
2	90-28	5	TRG-5x2-R...	●	○	×	×	●	○	×	×	FLG-5x2-R...	●	○	×	×	●	○	×	×	8	M10x20TPI	—
3	13-10	0	TRG-0x3-R...	●	○	×	×	●	○	×	×	FLG-0x3-R...	●	○	×	×	●	○	×	×	8	—	20
3	19-14	1	TRG-1x3-R...	●	○	×	×	●	○	×	×	FLG-1x3-R...	●	○	×	×	●	○	×	×	8	—	30
3	32-20	3	TRG-3x3-R...	●	○	×	×	●	○	×	×	FLG-3x3-R...	●	○	×	×	●	○	×	×	8	M6	—
3	45-25	4	TRG-4x3-R...	●	○	×	×	●	○	×	×	FLG-4x3-R...	●	○	×	×	●	○	×	×	8	M8	—
3	70-30	6	TRG-6x3-R...	●	○	×	×	●	○	×	×	FLG-6x3-R...	●	○	×	×	●	○	×	×	8	M12x20TPI	—
3	120-40	8	TRG-8x3-R...	●	○	×	×	●	○	×	×	FLG-8x3-R...	●	○	×	×	●	○	×	×	8	M15x20TPI	—
4	17-14	1	TRG-1x4-R...	●	○	×	×	●	○	×	×	FLG-1x4-R...	●	○	×	×	●	○	×	×	8	—	30
4	24-18	2	TRG-2x4-R...	●	○	×	×	●	○	×	×	FLG-2x4-R...	●	○	×	×	●	○	×	×	8	—	—
4	30-20	3	TRG-3x4-R...	●	○	×	×	●	○	×	×	FLG-3x4-R...	●	○	×	×	●	○	×	×	8	M6	—
4	40-26	4	TRG-4x4-R...	●	○	×	×	●	○	×	×	FLG-4x4-R...	●	○	×	×	●	○	×	×	8	M8	—
4	70-35	6	TRG-6x4-R...	●	○	×	×	●	○	×	×	FLG-6x4-R...	●	○	×	×	●	○	×	×	8	M12x20TPI	—
4	120-45	8	TRG-8x4-R...	●	○	×	×	●	○	×	×	FLG-8x4-R...	●	○	×	×	●	○	×	×	8	M15x20TPI	—
5	22-18	2	TRG-2x5-R...	●	○	×	×	●	○	×	×	FLG-2x5-R...	●	○	×	×	●	○	×	×	8	—	—
5	30-22	3	TRG-3x5-R...	●	○	×	×	●	○	×	×	FLG-3x5-R...	●	○	×	×	●	○	×	×	8	M6	—
5	40-28	4	TRG-4x5-R...	●	○	×	×	●	○	×	×	FLG-4x5-R...	●	○	×	×	●	○	×	×	8	M8	—
5	60-35	6	TRG-6x5-R...	●	○	×	×	●	○	×	×	FLG-6x5-R...	●	○	×	×	●	○	×	×	8	M12x20TPI	—
5	150-45	8	TRG-8x5-R...	●	○	×	×	●	○	×	×	FLG-8x5-R...	●	○	×	×	●	○	×	×	8	M15x20TPI	—
6	34-26	4	TRG-4x6-R...	●	○	×	×	●	○	×	×	FLG-4x6-R...	●	○	×	×	●	○	×	×	8	M8	—
6	40-30	5	TRG-5x6-R...	●	○	×	×	●	○	×	×	FLG-5x6-R...	●	○	×	×	●	○	×	×	8	M10x20TPI	—
6	50-34	6	TRG-6x6-R...	●	○	×	×	●	○	×	×	FLG-6x6-R...	●	○	×	×	●	○	×	×	8	M12x20TPI	—
6	90-45	8	TRG-8x6-R...	●	○	×	×	●	○	×	×	FLG-8x6-R...	●	○	×	×	●	○	×	×	8	M15x20TPI	—
6	180-60	10	TRG-10x6-R...	●	○	×	×	●	○	×	×	FLG-10x6-R...	●	○	×	×	●	○	×	×	8	M18x20TPI	—
7	48-35	6	TRG-6x7-R...	●	○	×	×	●	○	×	×	FLG-6x7-R...	●	○	×	×	●	○	×	×	8	M12x20TPI	—
7	60-40	7	TRG-7x7-R...	●	○	×	×	●	○	×	×	FLG-7x7-R...	●	○	×	×	●	○	×	×	8	M14x20TPI	—
7	70-45	8	TRG-8x7-R...	●	○	×	×	●	○	×	×	FLG-8x7-R...	●	○	×	×	●	○	×	×	8	M15x20TPI	—
7	180-60	10	TRG-10x7-R...	●	○	×	×	●	○	×	×	FLG-10x7-R...	●	○	×	×	●	○	×	×	8	M18x20TPI	—
8	46-35	6	TRG-6x8-R...	●	○	×	×	●	○	×	×	FLG-6x8-R...	●	○	×	×	●	○	×	×	8	M12x20TPI	—
8	55-40	7	TRG-7x8-R...	●	○	×	×	●	○	×	×	FLG-7x8-R...	●	○	×	×	●	○	×	×	8	M14x20TPI	—
8	65-45	8	TRG-8x8-R...	●	○	×	×	●	○	×	×	FLG-8x8-R...	●	○	×	×	●	○	×	×	8	M15x20TPI	—
8	240-60	10	TRG-10x8-R...	●	○	×	×	●	○	×	×	FLG-10x8-R...	●	○	×	×	●	○	×	×	8	M18x20TPI	—
9	62-45	8	TRG-8x9-R...	●	○	×	×	●	○	×	×	FLG-8x9-R...	●	○	×	×	●	○	×	×	8	M15x20TPI	—
9	240-60	10	TRG-10x9-R...	●	○	×	×	●	○	×	×	FLG-10x9-R...	●	○	×	×	●	○	×	×	8	M18x20TPI	—
10	65-48	8	TRG-8x10-R...	●	○	×	×	●	○	×	×	FLG-8x10-R...	●	○	×	×	●	○	×	×	8	M15x20TPI	—
10	90-60	10	TRG-10x10-R...	●	○	×	×	●	○	×	×	FLG-10x10-R...	●	○	×	×	●	○	×	×	8	M18x20TPI	—
10	240-80	11	TRG-11x10-R...	●	○	×	×	●	○	×	×	FLG-11x10-R...	●	○	×	×	●	○	×	×	8	M21x14TPI	—
12	80-55	10	TRG-10x12-R...	●	○	×	×	●	○	×	×	FLG-10x12-R...	●	○	×	×	●	○	×	×	8	M18x20TPI	—
12	110-70	11	TRG-11x12-R...	●	○	×	×	●	○	×	×	FLG-11x12-R...	●	○	×	×	●	○	×	×	8	M21x14TPI	—
12	400-100	12	TRG-12x12-R...	●	○	×	×	●	○	×	×	FLG-12x12-R...	●	○	×	×	●	○	×	×	8	M25x14TPI	—

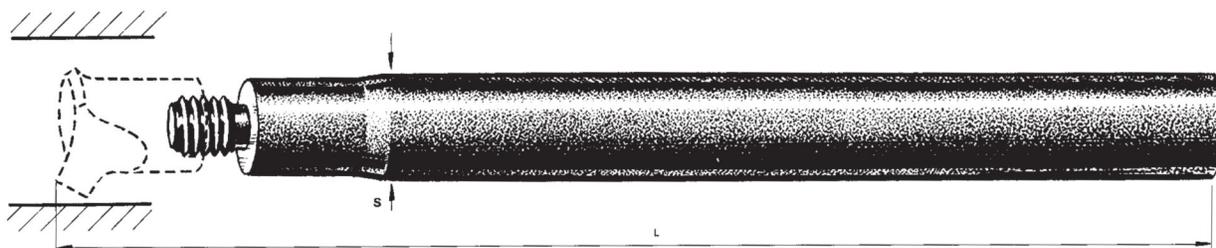
▲ Please indicate here alloy or grade of carbide required ▲

The above mentioned TRG and FLG are for cutting single-start threads.  
On request these tools are also produced for multi-start threads.

Availability: ● ex stock / ○ within short notice / × on request

# SCH

## Shanks SCH for detachable Head Type for Use on Turning Lathes



How to order (example): 10 pieces SCH-6-R-N

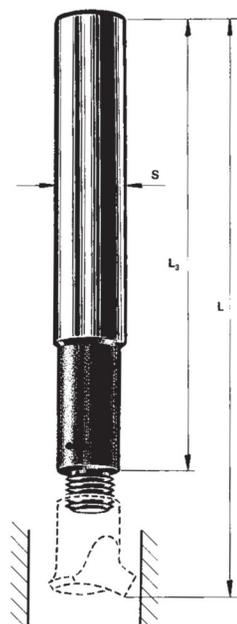
Normal series						
Size SCH	Code number for righthand-side (for lefthand-side: replace "R" by "L")	Availability		Ø S-h11 of shank mm	Thread	Total length L mm
		"R"	"L"			
3	SCH-3-R-N	●	●	10	M6	100
	SCH-3-R-T	●	●	10	M6	125
	SCH-3-R-V	●	●	12	M6	200
4	SCH-4-R-N	●	●	13	M8	230
	SCH-4-R-V	●	●	15	M10×20TPI	260
5	SCH-5-R-N	●	●	15	M10×20TPI	260
6	SCH-6-R-N	●	●	17	M12×20TPI	280
7	SCH-7-R-N	●	●	19	M14×20TPI	310
8	SCH-8-R-N	●	●	20	M15×20TPI	330
9	SCH-9-R-N	●	●	22	M15×20TPI	360
10	SCH-10-R-N	●	●	25	M18×20TPI	390
11	SCH-11-R-N	●	●	30	M21×14TPI	430
12	SCH-12-R-N	●	●	35	M25×14TPI	500

Reinforced series for carbide tipped tools and wide overhang						
Size SCH	Code number for righthand-side (for lefthand-side: replace "R" by "L")	Availability		Ø S-h11 of shank mm	Thread	Total length L mm
		"R"	"L"			
3	SCH-3-R-V	●	●	12	M6	200
4	SCH-4-R-V	●	●	14	M8	230
5	SCH-5-R-V	●	●	16	M10×20TPI	260
6	SCH-6-R-V	●	●	18	M12×20TPI	280
7	SCH-7-R-V	●	●	20	M14×20TPI	310
8	SCH-8-R-V	●	●	22	M15×20TPI	330
9	SCH-9-R-V	●	●	25	M15×20TPI	360
10	SCH-10-R-V	●	●	30	M18×20TPI	390
11	SCH-11-R-V	●	●	35	M21×14TPI	430

# SDK

## Ground Shanks SDK for detachable Head Type for Use on Boring Heads and on NC/CNC Turning Machines

How to order (example): 5 pieces SDK-3-12089-R



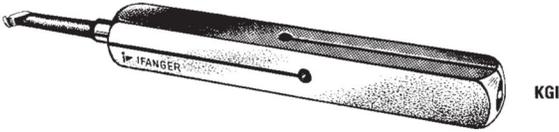
Size SDK	Ø S-h7 of shank mm	Length of shank L <sub>3</sub> mm	Code number for righthand-side (for lefthand-side: replace "R" by "L")	Availability		Thread	Total length L mm
				"R"	"L"		
3	10	79	SDK-3-10079-R	●	○	M6	100
3	10	119	SDK-3-10119-R	●	○	M6	140
3	12	89	SDK-3-12089-R	●	○	M6	110
3	12	129	SDK-3-12129-R	●	○	M6	150
4	12	97	SDK-4-12097-R	●	○	M8	120
		147	SDK-4-12147-R	●	○	M8	170
5	14	74	SDK-5-14074-R	●	○	M10×20TPI	100
5	14	114	SDK-5-14114-R	●	○	M10×20TPI	140
5	14	164	SDK-5-14164-R	●	○	M10×20TPI	190
6	16	71	SDK-6-16071-R	●	○	M12×20TPI	100
6	16	111	SDK-6-16111-R	●	○	M12×20TPI	140
6	16	171	SDK-6-16171-R	●	○	M12×20TPI	200
6	18	111	SDK-6-18111-R	●	○	M12×20TPI	140
6	18	171	SDK-6-18171-R	●	○	M12×20TPI	200
7	18	68	SDK-7-18068-R	●	○	M14×20TPI	100
7	18	108	SDK-7-18108-R	●	○	M14×20TPI	140
7	18	188	SDK-7-18188-R	●	○	M14×20TPI	220
8	20	70	SDK-8-20070-R	●	○	M15×20TPI	105
8	20	110	SDK-8-20110-R	●	○	M15×20TPI	145
8	20	195	SDK-8-20195-R	●	○	M15×20TPI	230
8	22	70	SDK-8-22070-R	●	○	M15×20TPI	105
8	22	110	SDK-8-22110-R	●	○	M15×20TPI	145
8	22	195	SDK-8-22195-R	●	○	M15×20TPI	230
10	25	108	SDK-10-25108-R	●	○	M18×20TPI	150
10	25	188	SDK-10-25188-R	●	○	M18×20TPI	230
10	25	258	SDK-10-25258-R	●	○	M18×20TPI	300
10	30	108	SDK-10-30108-R	●	○	M18×20TPI	150
10	30	188	SDK-10-30188-R	●	○	M18×20TPI	230
10	30	258	SDK-10-30258-R	●	○	M18×20TPI	300

Availability: ● ex stock / ○ within short notice

# KGI

## Standard Tool Holders for Boring Tools

Clamping holders KGI

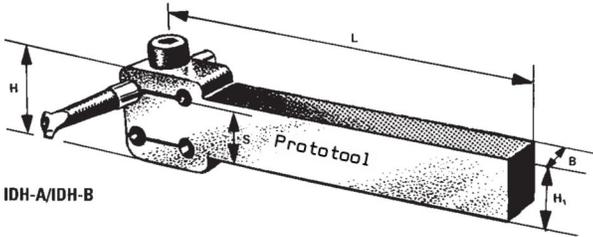


How to order (example): 5 pieces KGI

For tools of sizes	For $\varnothing$ of shank mm	Type and code number	Availability	Measurements mm
0000-3	8 and 10	KGI	●	16×16×125
0000-2	8	KGI-A	●	12×12×100
0000-2	8	KGI-B	●	14×10×100
Shank 4 and 6	4 and 6	KGI-C	●	10×10× 90

# IDH

Tool holders IDH for internal turning tools sizes 0000-3



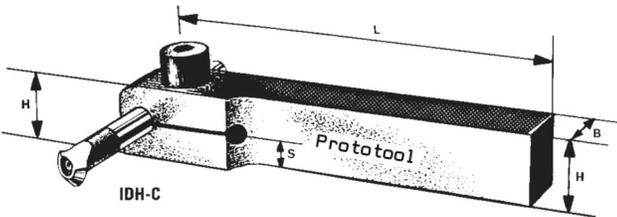
IDH-A/IDH-B

How to order (example): 1 piece IDH-A-18

Type	Code number	Height of center S above tool rest in mm	Measurements H×B×L mm	Bores mm	Availability
IDH-A	IDH-A-..	12-20	30×12×150	8 and 10	●

Please state accurate height of center S above tool rest

Height of holder H <sub>1</sub> in mm										
if S =	12	13	14	15	16	17	18	19	20	
H <sub>1</sub> =	11.2	13.2	15.2	17.2	19.2	21.2	23.2	25.2	27.2	



IDH-C

How to order (example): 1 piece IDH-B-25

Type	Code number	Height of center S above tool rest in mm	Measurements H×B×L mm	Bores mm	Availability
IDH-B	IDH-B-..	21-30	40×22×175	8 and 10	●

Please state accurate height of center S above tool rest

Height of holder H <sub>1</sub> in mm										
if S =	21	22	23	24	25	26	27	28	29	30
H <sub>1</sub> =	21.2	23.2	25.2	27.2	29.2	31.2	33.2	35.2	37.2	39.2

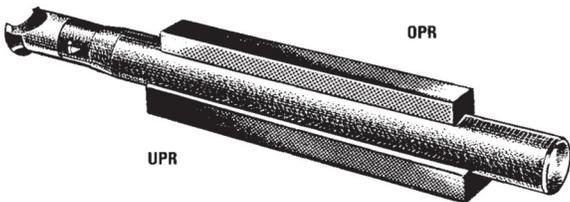
How to order (example): 1 piece IDH-C-12/8

Type	Code number	Height of center S above tool rest in mm	Measurements H×B×L mm	Bores mm	Availability
IDH-C	IDH-C-../..	8 or 10 or 12	20×10×100	8 or 10	●

Please indicate  $\varnothing$  of bores (8 or 10 mm)  
Please state here height of center S above tool rest (8 or 10 or 12 mm)

# OPR – UPR

Prisms



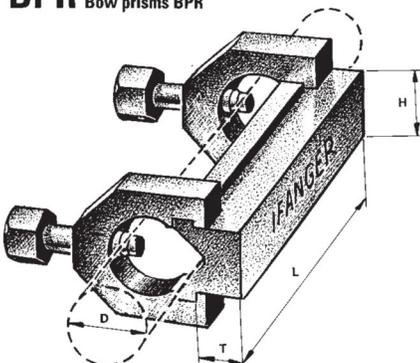
UPR

How to order (example): 5 pieces UPR-130

For tools of sizes	Lower prisms UPR			Upper prisms OPR		
	Type and code number	Availability	Measurements in mm	Type and code number	Availability	Measurements in mm
0000- 3	PR-50	●	8×10× 50	PR-50	●	8×10× 50
3- 8	UPR-130	●	12×22×130	OPR-100	●	8×14×100
6-10	UPR-150	●	15×25×150	OPR-125	●	8×14×125
10-12	UPR-180	●	20×35×180	OPR-150	●	8×14×150

# BPR

Bow prisms BPR

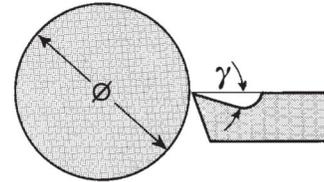


How to order (example): 1 piece BPR-20

For IFANGER shanks no.	Size	Code number	Availability	D mm	Measurements in mm L×H×T
3- 8	20	BPR-20	●	10-20	130×16×12
4-12	35	BPR-35	●	12-35	180×30×20

Availability: ● ex stock

# Recommendations regarding cutting speeds, number of revolutions and rake angles when turning



Material to be machined	Cross section of chip (feed "s" × depth of chip "t")		Cutting speed m/min (tool life approx. 1 h.) for cutting tool					Rake angle γ for cutting tool		
	Section mm <sup>2</sup>	Example for "s" × "t"	HSS-CO (Kob)	HSS (Rap)	TiN	Carbide P30 K10		HSS-CO/HSS/TiN	Carbide P30 K10	
Steel up to 50 kg/mm <sup>2</sup> tensile strength	0.3	0.1×3/0.2×1.5	60	40	100	200		25	18	
	0.6	0.3×2/0.2×3	50	35	90	200				
	1.5	0.3×5/0.5×3	40	30	75	150				
	3	0.3×10/0.5×6	35	25	60	150				
	6	0.6×10/0.8×7.5	30	20		100				
Steel of more than 60 kg/mm <sup>2</sup> tensile strength	0.3	0.1×3/0.2×1.5	50	35	90	150		20	12	
	0.6	0.2×3/0.3×2	40	30	75	150				
	1.5	0.3×5/0.5×3	35	25	60	100				
	3	0.3×10/0.5×6	30	20	50	100				
	6	0.6×10/0.8×7.5	25	20		70				
Grey cast iron	0.3	0.1×3/0.2×1.5	35	25	60	150		15	10	
	0.6	0.2×3/0.3×2	30	25	50	100				
	1.5	0.3×5/0.5×3	25	20	45	100				
	3	0.3×10/0.5×6	20	15	35	70				
	6	0.6×10/0.8×7.5	15	10		50				
Aluminum Copper	0.3	0.1×3/0.2×1.5	200	150	270	500		30	20	
	1	0.2×5/0.4×2.5	150	100	240	400				
	2	0.4×5/0.2×10	100	70	180	400				
	5	0.4×12/0.6×8	70	50	125	300				
	10	0.6×17/1×10	50	40		200				
Brass	0.3	0.1×3/0.2×1.5	150	100	250	400		5	5	
	1	0.2×5/0.4×2.5	100	70	180	300				
	2	0.4×5/0.2×10	70	50	125	300				
	5	0.4×12/0.6×8	50	35	90	200				
	10	0.6×17/1×10	35	25		150				

Piece to be machined Ø mm	Number of revolutions at cutting speed (m/min) of														
	10	15	20	25	30	35	40	50	70	100	150	200	300	400	500
5	640	950	1270	1590	1910	2250	2550	3200	4450	6350	9550				
6	530	800	1060	1330	1590	1860	2100	2650	3700	5300	7950				
8	400	600	800	990	1190	1390	1590	1990	2800	4000	5950	7950			
10	320	480	640	800	950	1110	1270	1590	2250	3200	4750	6350	9550		
12	265	400	530	660	800	930	1060	1330	1860	2650	4000	5300	7950		
15	210	320	420	530	640	740	850	1060	1490	2100	3200	4250	6350	8500	
20	160	240	320	400	480	560	640	800	1110	1590	2400	3200	4750	6350	795
25	127	190	255	320	380	450	510	640	890	1270	1910	2550	3800	5100	635
30	106	160	210	265	320	370	420	530	740	1060	1590	2100	3200	4250	530
35	91	136	180	225	275	320	360	450	640	910	1360	1820	2750	3650	455
40	80	119	160	200	240	280	320	400	560	800	1190	1590	2400	3200	400
50	64	95	127	160	190	225	255	320	450	640	950	1270	1910	2550	320
60	53	80	106	133	160	185	210	265	370	530	800	1060	1590	2100	265
80	40	60	80	99	119	140	160	200	280	400	600	800	1190	1590	199
100	32	48	64	80	95	111	127	160	225	320	480	640	950	1270	159
120	27	40	53	66	80	93	106	133	185	265	400	530	800	1060	133
150	21	32	42	53	64	74	85	106	149	210	320	420	640	850	106
200	16	24	32	40	48	56	64	80	111	160	240	320	480	640	800
250	13	19	25	32	38	45	51	64	89	127	190	255	380	510	640
300	11	16	21	27	32	37	42	53	74	106	159	210	320	420	530
400	8	12	16	20	24	28	32	40	56	80	119	160	240	320	400
500	6	10	13	16	19	22	25	32	45	64	95	127	190	255	320