



GÜHRING

Tool holder with shortened head length for
process-reliable parting off on sliding headstock lathes

new

Addition of indexable inserts
with INOX chip former by pitch width 2.00 mm

System 222

Tool system for grooving and parting off

System 222

2 cutting edges

22 mm length

2 cutting edges & 22 mm length

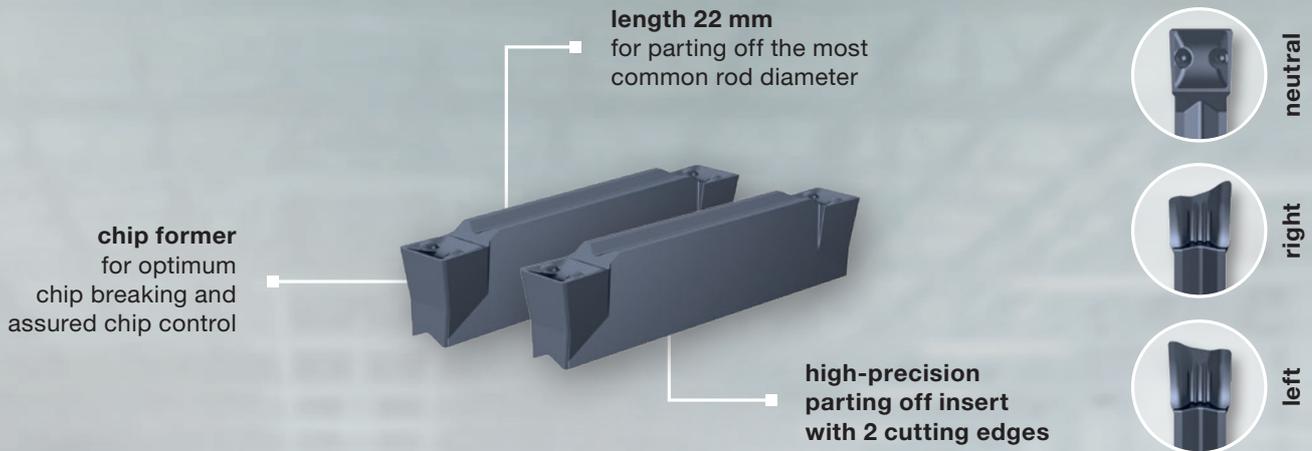
For parting off and grooving common bar diameters

Process reliability is a crucial factor in parting off, as it is often the final machining process step on a component. If the cutting tool does not perform well here, the finished component can be damaged. It is therefore important to use a grooving tool whose geometry, tool material and coating have been specially developed for this application.

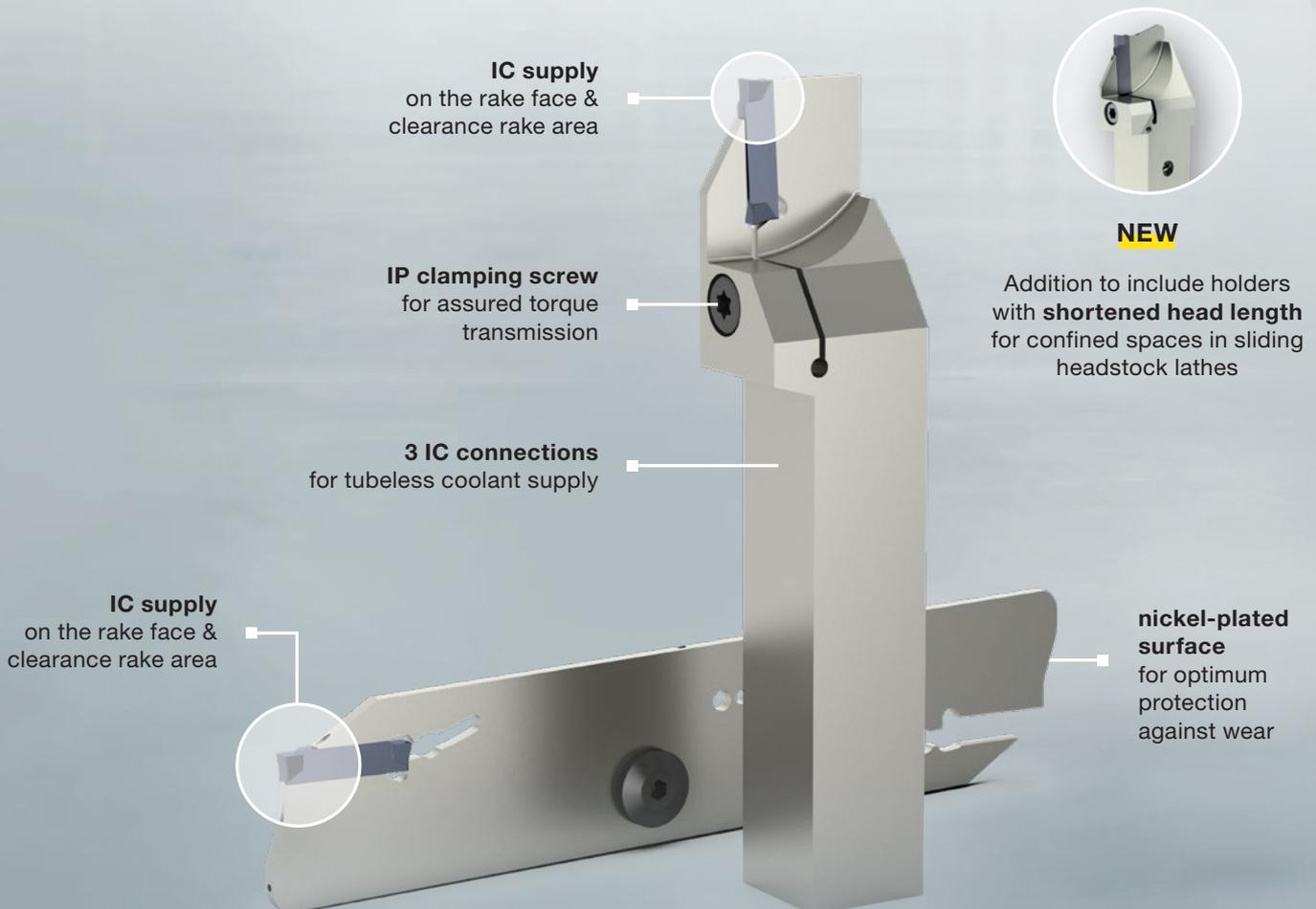
This is where Gühring's System 222 comes in: the indexable inserts are ideal for general applications in steel materials – thanks to an optimal combination of effective chip former, matched carbide and wear-resistant coating. The chip former ensures targeted chip constriction so that the chips flow reliably without jamming. In addition, specially developed variants are available for machining stainless steels (INOX) and non-ferrous metals. The extensive standard product range of tool holders and parting off blades is available with or without internal coolant supply.

- consistent and longer tool life than competitors
- process-reliable thanks to excellent chip constriction
- excellent surface quality

Indexable insert



Tool holder & parting off blade





System 222 addition for sliding headstock lathes

High flexibility when grooving and parting off

System 222 for grooving and parting off has been expanded

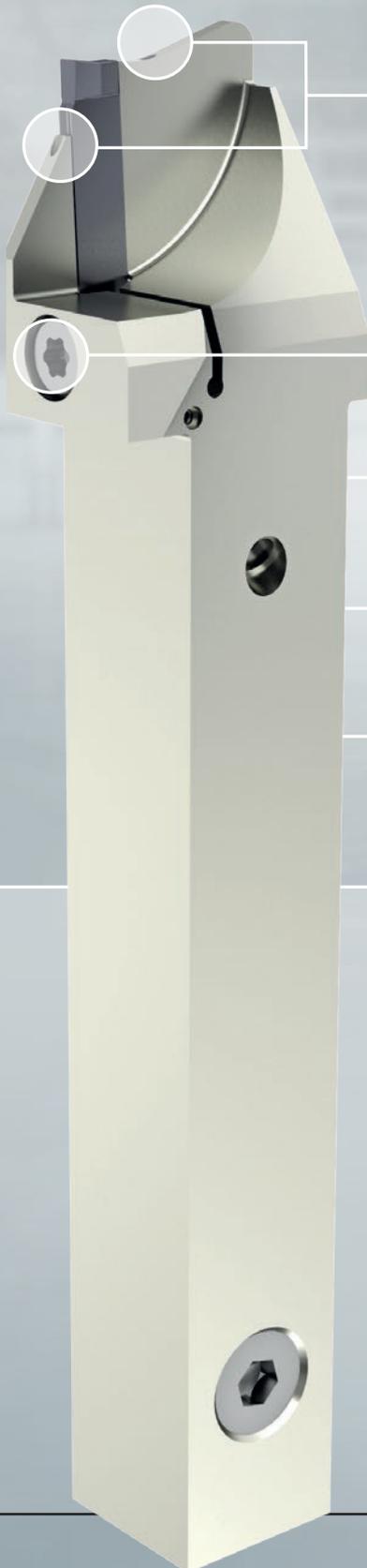
Optimised head length for tight spaces in sliding headstock lathes.

Even more flexibility when grooving and parting off:
This is ensured by the new tool holders with an optimised head length, which are ideally suited for narrow spaces in sliding headstock lathes.

They are characterised by their newly developed clamping screw with Torx Plus on both sides in the same size.
This allows the indexable inserts to be clamped from both the top and bottom.

x Tool life increased by 80 %

- X long tool life
- X maximum stability
- X reliable chip removal



optimised IC supply
on the clearance & rake face

Torx Plus screw on both sides
enables clamping from above and below

nickel-plated surface
for optimum protection against wear

high-strength cutting material
for a long tool life

various designs
for 2 mm insert width

Application example

Component: Drive shaft, 42CrMo4

Tool: Indexable insert: 26601 22,020; holder: 26106

Customer target: Surface finish of $R_z = 3-6 \mu\text{m}$,
very good chip constriction, consistent tool life

Difficulty: Tool life fluctuating, approx. 500 parting cuts, poor surface
 $R_z = 8-15 \mu\text{m}$; chip constriction too low

Cutting data:	Gühring	Competition
v_c	170 m/min	v_c 170 m/min
f	0.10 rev	f 0.08 rev

Tool life:	900 parting cuts	500 parting cuts
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Technical notes

Article descriptions

Article descriptions indexable insert

Order number example: **GZ222.0300.020.PM.01.N/R/L.08**

	System	Cutting width	Corner radius	Rake angle	Range of application	Version	Angle (for R/L)
GZ	222	0300	020	PM	01	N/R/L	08

Article descriptions tool holder

Order number example: **GH222.2020.109.00.03.R.IK.52**

	System	Shank size	Total length	Insert position	Size	Version	Internal cooling	D max
GH	222	2020	109	00	03	R/L	IK	52

Article descriptions parting off blade

Order number example: **GS222.0032.147.03.02.N.IK**

	System	Height	Total length	Size	No. of insert seats	Neutral version	Internal cooling
GS	222	0032	147	03	02	N	IK

Perfectly combined: assignment of indexable insert and holder

Not every indexable insert fits into every holder. You can find the matching products by referring to the table values on the respective product pages: If the cutting widths of both products match, the indexable insert can be used in the corresponding tool holder.

Example tool holder

h mm	b mm	L mm	l2 mm	h1 mm	f1 mm	Dmax. mm	Cut width mm	Code no.	Description
10.00	10.00	125.00	30.00	10.00	9.00	26.00	2.0	22.110	GH222.1010.125.00.02.R.00.26
12.00	12.00	125.00	34.00	12.00	10.50	34.00	3.0	22.020	GH222.1212.125.00.03.R.00.34
12.70	12.70	126.15	34.00	12.70	11.20	34.00	3.0	22.030	GH222.0500.500.00.03.R.00.34
15.87	15.87	127.00	39.50	15.87	14.37	45.00	3.0	22.040	GH222.0625.500.00.03.R.00.45
16.00	16.00	125.00	39.50	16.00	14.50	45.00	3.0	22.050	GH222.1616.125.00.03.R.00.45
19.05	19.05	127.00	45.00	19.05	19.05	52.00	3.0	22.060	GH222.0750.500.00.03.R.00.52

Example indexable insert

Cut width (b) mm	L mm	R mm	tmax. mm	Code no.	Description
2.0	22.00	0.20	21.00	22.020	GZ222.0200.020.PP.02.N
3.0	22.00	0.20	21.00	22.030	GZ222.0300.020.PP.02.N



P	M	K	N	S	H	Tool illustration	Type	Cutting direction	Tool material	Surface	Article no.	Page
●	○	○	○	○	○		GZ222		VHM	F	26601	10
●	○	○	○	○	○		GZ222		VHM	F	26602	10
●	○	○	○	○	○		GZ222		VHM	F	26603	10
●	○	○	○	○	○		GZ122		VHM	F	26604	11
●	●	●	○	●	●		GZ222		VHM	a	26605	11
			●				GZ222		VHM	○	26607	12
			●				GZ222		VHM	○	26608	12
			●				GZ222		VHM	○	26609	12



Tool illustration	Type	Design	Article no.	Page
Square shank holder straight, external machining, without IC				
	GH222		26100	13
	GH222		26101	13
	GH222		26104	14
	GH222		26105	14
Square shank holders straight, external machining, with IC				
	GH222		26102	15
	GH222		26103	15
	GH222		26106	16
	GH222		26107	16
Parting off blade, without IC				
	GS222		26200	17
Parting off blade, with IC				
	GS222		26201	18
Reinforced parting off blade, without IC				
	GS222		26202	19
	GS222		26203	19
Reinforced parting off blade, with IC				
	GS222		26206	20
	GS222		26207	20

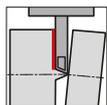


Tool illustration	Article no.	Page
Accessories		
	25906	21
	25907	21
	25930	21
	25909	21
	25910	21
	25905	22
	25913	22
	25904	22
	25922	23
	25931	23
	25921	23

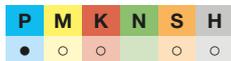


Indexable inserts for parting off

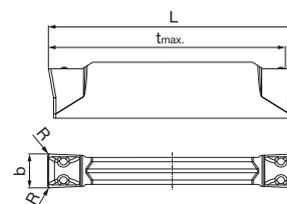
Indexable inserts for parting off



with chip former • geometry .PP sintered • for tool holders type GH222/GS222



F cutting data see page 24

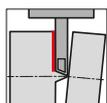


Article no. **26601**

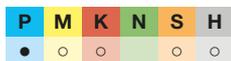


cut width (b) mm	L mm	R mm	tmax. mm	Code no.	Description
2.0	22.00	0.20	21.00	22.020	GZ222.0200.020.PP.02.N
3.0	22.00	0.20	21.00	22.030	GZ222.0300.020.PP.02.N

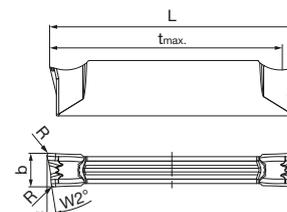
Indexable inserts for parting off



with chip former • geometry .PM sintered • for tool holders type GH222/GS222



F cutting data see page 24



Right-hand design as shown. Left-hand design is mirror image.

Article no. **26602**



cut width (b) mm	L mm	R mm	W2 °	tmax. mm	Code no.	Description
3.0	22.35	0.20	8	21.00	22.030	GZ222.0300.020.PM.01.R.08

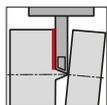
On the left-hand design, the designation changes to .L

Article no. **26603**

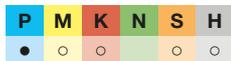




Indexable inserts for parting off

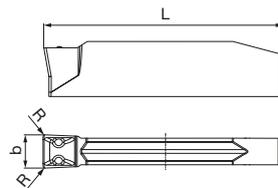


with chip former • geometry .PP sintered • for tool holders type GH222/GS222



VHM GZ122

F cutting data see page 24

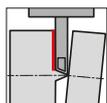


Article no. **26604**



cut width (b) mm	L mm	R mm	Code no.	Description
3.0	21.54	0.20	22.030	GZ122.0300.020.PP.02.N

Indexable inserts for parting off

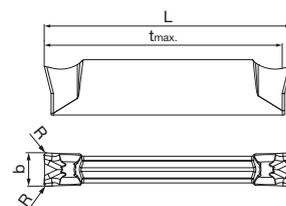


with chip former • geometry .MP sintered • for tool holders type GH222/GS222



VHM GZ222

a cutting data see page 24



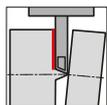
Article no. **26605**



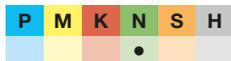
cut width (b) mm	L mm	R mm	tmax. mm	Code no.	Description
2.0	22.00	0.20	21.00	22.020	GZ222.0200.020.MP.02.N
3.0	22.00	0.20	21.00	22.030	GZ222.0300.020.MP.02.N



Indexable inserts for parting off



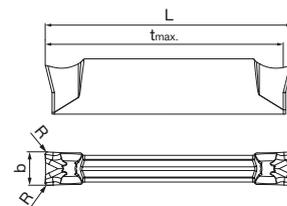
with chip former • geometry NN. sintered • for tool holders type GH222/GS222



VHM

GZ222

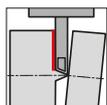
○ cutting data see page 25



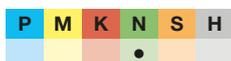
Article no. **26607** ○ (N)

cut width (b) mm	L mm	R mm	tmax. mm	Code no.	Description
3.0	22.00	0.20	21.00	22.030	GZ222.0300.020.NN.02.N

Indexable inserts for parting off



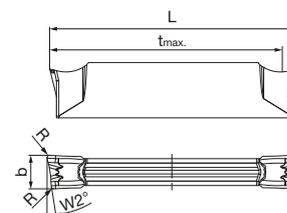
with chip former • geometry NN. sintered • for tool holders type GH222/GS222



VHM

GZ222

○ cutting data see page 24



Right-hand design as shown. Left-hand design is mirror image.

Article no. **26608** ○ (R)

cut width (b) mm	L mm	R mm	W2 °	tmax. mm	Code no.	Description
3.000	22.35	0.20	8	21.00	22.030	GZ222.0300.020.NN.02.R

On the left-hand design, the designation changes to .L

Article no. **26609** ○ (L)

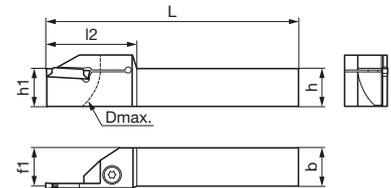


Square shank holder straight, external machining, without IC

for indexable inserts type 222 • tmax. 21 mm: maximum grooving depth before 2nd cutting edge engages
without internal coolant supply



GH222



Dmax. = 52	
max. Ø	tmax.
52	26
65	24
82	22
100	21
160	20

Right-hand design as shown. Left-hand design is mirror image.

Article no. **26100**



h mm	b mm	L mm	l2 mm	h1 mm	f1 mm	Dmax. mm	cut width mm	Code no.	Description
10.00	10.00	125.00	30.00	10.00	9.00	26.00	2.0	22.110	GH222.1010.125.00.02.R.00.26
12.00	12.00	125.00	34.00	12.00	10.50	34.00	3.0	22.020	GH222.1212.125.00.03.R.00.34
12.70	12.70	126.15	34.00	12.70	11.20	34.00	3.0	22.030	GH222.0500.500.00.03.R.00.34
15.87	15.87	127.00	39.50	15.87	14.37	45.00	3.0	22.040	GH222.0625.500.00.03.R.00.45
16.00	16.00	125.00	39.50	16.00	14.50	45.00	3.0	22.050	GH222.1616.125.00.03.R.00.45
19.05	19.05	127.00	45.00	19.05	19.05	52.00	3.0	22.060	GH222.0750.500.00.03.R.00.52
20.00	20.00	125.00	45.00	20.00	20.00	52.00	3.0	22.070	GH222.2020.125.00.03.R.00.52
25.00	25.00	150.00	45.00	25.00	25.00	52.00	3.0	22.080	GH222.2525.150.00.03.R.00.52
25.40	25.40	152.40	45.00	25.40	25.40	52.00	3.0	22.090	GH222.1000.600.00.03.R.00.52
12.00	12.00	125.00	30.00	12.00	11.00	26.00	2.0	22.120	GH222.1212.125.00.02.R.00.26
12.00	12.00	125.00	34.00	12.00	11.00	34.00	2.0	22.121	GH222.1212.125.00.02.R.00.34
12.70	12.70	127.00	30.00	12.70	11.70	26.00	2.0	22.130	GH222.0500.500.00.02.R.00.26
12.70	12.70	127.00	34.00	12.70	11.70	34.00	2.0	22.131	GH222.0500.500.00.02.R.00.34
15.87	15.87	127.00	39.50	15.87	14.87	45.00	2.0	22.140	GH222.0625.500.00.02.R.00.45
16.00	16.00	125.00	39.50	16.00	15.00	45.00	2.0	22.150	GH222.1616.125.00.02.R.00.45
19.05	19.05	127.00	39.00	19.05	19.05	45.00	2.0	22.160	GH222.0750.500.00.02.R.00.45
20.00	20.00	125.00	39.00	20.00	20.00	45.00	2.0	22.170	GH222.2020.125.00.02.R.00.45

On the left-hand design, the designation changes to .L

Article no. **26101**



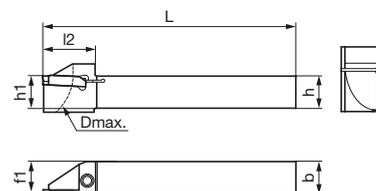
Spare parts

Article no.	Clamping screw	Tightening torque Nm	Description
25906 Code 4.000	M4x15.5x15IP	3.5	GH222.1212....; GH222.0500....; GH222.0625....; GH222.1616....
25907 Code 5.000	M5x18x25IP	6	GH222.0750....; GH222.2020....; GH222.2525....; GH222.1000....
25904 Code 15.001	Torx Plus wrench T15IP		
25922 Code 15.000	Torx Plus wrench T25IP		



Square shank holder straight, external machining, without IC

for sliding headstock lathes • for indexable inserts type 222
 • t_{max.} 21 mm: maximum grooving depth before 2nd cutting edge engages
 without internal coolant supply • Shank tolerance ±0.05 mm



D _{max.} = 34	
max. Ø	t _{max.}
34	17
42	11
52	9

GH222

Right-hand design as shown. Left-hand design is mirror image.

Article no. **26104**



h mm	b mm	L mm	l2 mm	h1 mm	f1 mm	D _{max.} mm	cut width mm	Code no.	Description
9.52	9.52	101.60	20.00	9.52	8.52	18.00	2.0	22.100	GH222.0375.400.00.02.R.00.18
10.00	10.00	100.00	20.00	10.00	9.00	18.00	2.0	22.110	GH222.1010.100.00.02.R.00.18
12.00	12.00	125.00	20.00	12.00	11.00	22.00	2.0	22.120	GH222.1212.125.00.02.R.00.22
12.70	12.70	127.00	20.00	12.70	11.70	22.00	2.0	22.130	GH222.0500.500.00.02.R.00.22
15.87	15.87	127.00	26.00	15.87	14.87	34.00	2.0	22.140	GH222.0625.500.00.02.R.00.34
16.00	16.00	125.00	26.00	16.00	15.00	34.00	2.0	22.150	GH222.1616.125.00.02.R.00.34

On the left-hand design, the designation changes to .L

Article no. **26105**



Spare parts

Article no.	Clamping screw	Tightening torque Nm	Description
25930			
Code 15.000	M5x17 IP15	4.4	GH222.0375....; GH222.1010....
	M5x19 IP15	4.4	GH222.1212....; GH222.0500....
	M5x22,5 IP15	4.4	GH222.0625....; GH222.1616....

Article no.	Torx Plus wrench
25931	
Code 15.001	T15IP



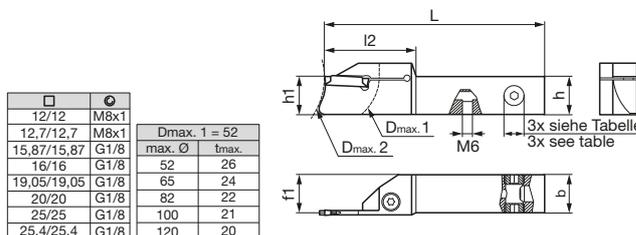
Square shank holders straight, external machining, with IC

for indexable inserts type 222 • tmax. 21 mm: maximum grooving depth before 2nd cutting edge engages

with internal coolant supply from above and below • TL (tubeless): tubeless coolant supply from shank size 19.05x19.05 from shank bottom



GH222



Right-hand design as shown. Left-hand design is mirror image.

Article no. **26102**



h mm	b mm	L mm	l2 mm	h1 mm	f1 mm	Dmax. 1 mm	Dmax. 2 mm	cut width mm	Code no.	Description
10.00	10.00	125.00	30.00	10.00	9.00	26.00	65.00	2.0	22.110	GH222.1010.125.00.02.R.IK.26
12.00	12.00	125.00	30.00	12.00	11.00	26.00	65.00	2.0	22.120	GH222.1212.125.00.02.R.IK.26
12.00	12.00	125.00	34.00	12.00	10.50	34.00	65.00	3.0	22.020	GH222.1212.125.00.03.R.IK.34
12.00	12.00	125.00	34.00	12.00	11.00	34.00	65.00	2.0	22.121	GH222.1212.125.00.02.R.IK.34
12.70	12.70	127.00	30.00	12.70	11.70	26.00	65.00	2.0	22.130	GH222.0500.500.00.02.R.IK.26
12.70	12.70	127.00	34.00	12.70	11.20	34.00	65.00	3.0	22.030	GH222.0500.500.00.03.R.IK.34
12.70	12.70	127.00	34.00	12.70	11.70	34.00	65.00	2.0	22.131	GH222.0500.500.00.02.R.IK.34
15.87	15.87	127.00	39.50	15.87	14.87	45.00	82.00	2.0	22.140	GH222.0625.500.00.02.R.IK.45
15.87	15.87	127.00	39.50	15.87	14.37	45.00	82.00	3.0	22.040	GH222.0625.500.00.03.R.IK.45
16.00	16.00	125.00	39.50	16.00	15.00	45.00	82.00	2.0	22.150	GH222.1616.125.00.02.R.IK.45
16.00	16.00	125.00	39.50	16.00	14.50	45.00	82.00	3.0	22.050	GH222.1616.125.00.03.R.IK.45
19.05	19.05	127.00	39.00	19.05	19.05	45.00	82.00	2.0	22.160	GH222.0750.404.00.02.R.IK.45
19.05	19.05	108.50	45.00	19.05	19.05	52.00	82.00	3.0	22.060	GH222.0750.427.00.03.R.IK.52
20.00	20.00	102.50	39.00	20.00	20.00	45.00	82.00	2.0	22.170	GH222.2020.103.00.02.R.IK.45
20.00	20.00	108.50	45.00	20.00	20.00	52.00	82.00	3.0	22.070	GH222.2020.109.00.03.R.IK.52
25.00	25.00	120.50	45.00	25.00	25.00	52.00	120.00	3.0	22.080	GH222.2525.120.00.03.R.IK.52
25.40	25.40	120.50	45.00	25.40	25.40	52.00	120.00	3.0	22.090	GH222.1000.474.00.03.R.IK.52

On the left-hand design, the designation changes to .L

Article no. **26103**



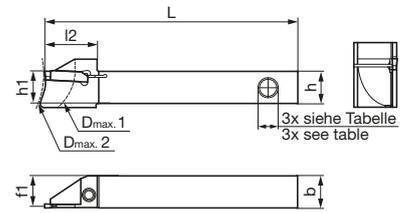
Spare parts

Article no.	Clamping screw	Tightening torque Nm	Description
25906 Code 4.000	M4x15.5x15IP	3.5	GH222.1212....; GH222.0500....; GH222.0625....; GH222.1616....
25907 Code 5.000	M5x18x25IP	6	GH222.0750....; GH222.2020....; GH222.2525....; GH222.1000....
25904 Code 15.001	Torx Plus wrench T15IP		
25922 Code 15.000	Torx Plus wrench T25IP		



Square shank holders straight, external machining, with IC

for sliding headstock lathes • for indexable inserts type 222 • t_{max.} 21 mm:
 maximum grooving depth before 2nd cutting edge engages
 with internal coolant supply from above and below • Shank tolerance ±0.05 mm



□	○		
9,52/9,52	M8x1		
10/10	M8x1	Dmax. 1 = 34	
12/12	M8x1	max. Ø	tmax.
12,7/12,7	M8x1	34	17
15,87/15,87	G1/8	42	11
16/16	G1/8	52	9

GH222

Right-hand design as shown. Left-hand design is mirror image.

Article no. **26106**



h mm	b mm	L mm	l2 mm	h1 mm	f1 mm	Dmax. 1 mm	Dmax. 2 mm	cut width mm	Code no.	Description
9.52	9.52	101.60	21.00	9.52	8.52	18.00	65.00	2.0	22.100	GH222.0375.400.00.02.R.IK.18
10.00	10.00	100.00	21.00	10.00	9.00	18.00	65.00	2.0	22.110	GH222.1010.100.00.02.R.IK.18
12.00	12.00	125.00	21.00	12.00	11.00	22.00	65.00	2.0	22.120	GH222.1212.125.00.02.R.IK.22
12.70	12.70	127.00	21.00	12.70	11.70	22.00	65.00	2.0	22.130	GH222.0500.500.00.02.R.IK.22
15.87	15.87	127.00	27.00	15.87	14.87	34.00	82.00	2.0	22.140	GH222.0625.500.00.02.R.IK.34
16.00	16.00	125.00	27.00	16.00	15.00	34.00	82.00	2.0	22.150	GH222.1616.125.00.02.R.IK.34

On the left-hand design, the designation changes to .L

Article no. **26107**



Spare parts

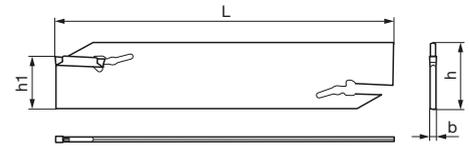
Article no.	Clamping screw	Tightening torque Nm	Description
25930			
Code 15.000	M5x17 IP15	4.4	GH222.0375....; GH222.1010....
	M5x19 IP15	4.4	GH222.1212....; GH222.0500....
	M5x22,5 IP15	4.4	GH222.0625....; GH222.1616....

Article no.	Torx Plus wrench
25931	
Code 15.001	T15IP



Parting off blade, without IC

for indexable inserts type 222
without internal coolant supply



GS222

Article no. **26200**



tmax. mm	b mm	h mm	h1 mm	L mm	cut width mm	Code no.	Description
35.00	2.25	26.00	21.40	120.00	3.0	22.002	GS222.0026.120.03.02.N
45.00	2.25	32.00	25.00	150.00	3.0	22.003	GS222.0032.150.03.02.N
35.00	1.55	26.00	21.40	120.00	2.0	22.102	GS222.0026.120.02.02.N
45.00	1.55	32.00	25.00	150.00	2.0	22.103	GS222.0032.150.02.02.N

Spare parts

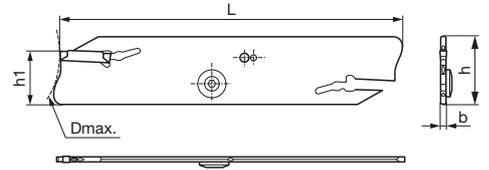
Article no.	Mounting key
25921	
Code 15.000	



Parting off blade, with IC

for indexable inserts type 222

with internal coolant supply from above and below



GS222

Article no. **26201**



tmax. mm	b mm	h mm	h1 mm	L mm	Dmax. mm	cut width mm	Code no.	Description
35.00	2.25	26.00	21.40	118.00	70.00	3.0	22.002	GS222.0026.118.03.02.N.IK
45.00	2.25	32.00	25.00	147.50	90.00	3.0	22.003	GS222.0032.147.03.02.N.IK
35.00	1.55	26.00	21.40	118.00	70.00	2.0	22.102	GS222.0026.118.02.02.N.IK
45.00	1.55	32.00	25.00	147.50	90.00	2.0	22.103	GS222.0032.147.02.02.N.IK

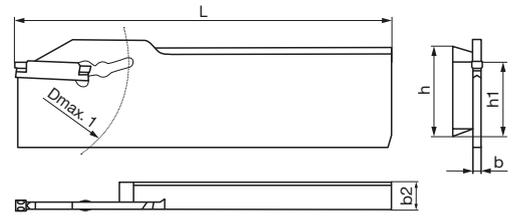
Spare parts

Article no. 25921 Code 15.000	Mounting key
Article no. 25909 Code 4.000	IC locking screw



Reinforced parting off blade, without IC

for indexable inserts type 222/122



GS222

Right-hand/right-hand design as shown. Left-hand/left-hand design is mirror image.

Article no. **26202**



b mm	b2 mm	h mm	h1 mm	L mm	Dmax. 1 mm	cut width mm	Code no.	Description
3.00	8.00	26.00	21.40	110.00	66.00	3.0	22.002	GS222.0826.110.03.01.R.00.R
3.00	8.00	32.00	25.00	120.00	66.00	3.0	22.003	GS222.0832.120.03.01.R.00.R

For left-hand/left-hand design, the designation changes to .L.00.L

Article no. **26203**



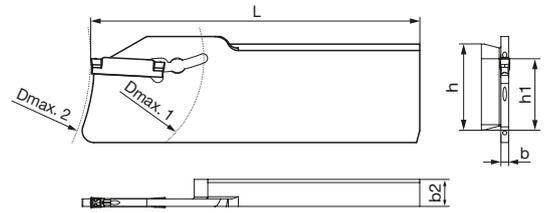
Spare parts

Article no. 25921 Code 15.000	Mounting key
Article no. 25909 Code 4.000	IC locking screw



Reinforced parting off blade, with IC

for indexable inserts type 222/122



GS222

Right-hand/right-hand design as shown. Left-hand/left-hand design is mirror image.

Article no. **26206**



b mm	b2 mm	h mm	h1 mm	L mm	Dmax. 1 mm	Dmax. 2 mm	cut width mm	Code no.	Description
3.00	8.00	26.00	21.40	99.54	66.00	120.00	3.0	22.002	GS222.0826.097.03.01.R.IK.R
3.00	8.00	32.00	25.00	123.02	66.00	120.00	3.0	22.003	GS222.0832.120.03.01.R.IK.R

For left-hand/left-hand design, the designation changes to .L.00.L

Article no. **26207**



Spare parts

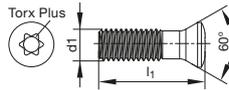
Article no. 25921 Code 15.000	Mounting key
Article no. 25909 Code 4.000	IC locking screw



Clamping screws



for shank holder system
222 GH222.1212 to
GH222.1616



Article no.

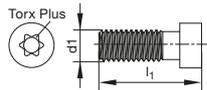
25906

Size	d1	l1 mm	Code no.
15IP	M4	15.500	4.000

Clamping screws



for shank holder system
222 GH222.0750 to
GH222.1000



Article no.

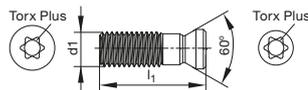
25907

Size	d1	l1 mm	Code no.
25IP	M5	18.000	5.000

Clamping screws



for shank holders
system 222 GH22 for
sliding headstock lathes



Article no.

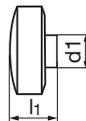
25930

Size	d1	l1 mm	Code no.
15IP	M5	17.000	15.000
15IP	M5	19.000	15.001
15IP	M5	22.500	15.002

IC screw plugs



for parting off blade
GS222



Article no.

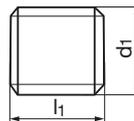
25909

Size	d1	l1 mm	Code no.
SW3	M4	4.700	4.000

IC screw plugs for tubeless coolant supply (TL)



for tool holders GH222
and GH305



Article no.

25910

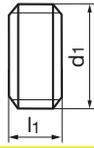
Size	d1	l1 mm	Code no.
SW3	M6	6.000	6.000



Set screws



for IC lock, systems 305 and 222



Article no.

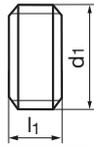
25905

Size	d1	l1 mm	Code no.
SW 4	G1/8	5.000	5.000

Set screws



for IC lock, systems 305 and 222



Article no.

25913

Size	d1	l1 mm	Code no.
SW4	M8x1	5.000	8.000

Torx Plus wrench



key with T-handle code no. 15.000 • allen key code no. 15.001



Article no.

25904

Size	l1 mm	Code no.
IP15	90.600	15.000
IP15	58.000	15.001



Torx Plus wrench



for tool holders GH222



Article no.

25922

Size	l1 mm	Code no.
25IP	58.000	15.000

Torx Plus wrench



Allen key for GH222 for sliding headstock lathes
• allen key code no. 15.001



Article no.

25931

Size	l1 mm	Code no.
15IP	58.000	15.000
25IP	62.000	15.001
25IP	67.000	15.002

Mounting keys



for parting off blade GS222



Article no.

25921

l1 mm	Code no.
120.000	15.000



Parting off



Machining group	System 222				
	v _c (m/min) by width		PP neutral	PM L/R	MP
	2	3	f (mm/rev)		
P1.1.1 Unalloyed steel, annealed, 0.15 % C, Rm 420 N/mm ² , 125 HB	100	120	0.130	0.060	0.100
P1.1.2 Unalloyed steel, heat-treated, 0.15 % C, Rm 420 N/mm ² , 125 HB	100	120	0.130	0.060	0.100
P1.1.3 Unalloyed steel, annealed, 0.45 % C, Rm 640 N/mm ² , 190 HB	100	120	0.130	0.060	0.100
P1.1.4 Unalloyed steel, heat-treated, 0.45 % C, Rm 640 N/mm ² , 190 HB	100	120	0.130	0.060	0.100
P1.1.5 Unalloyed steel, heat-treated, 0.45 % C, Rm 850 N/mm ² , 250 HB	100	120	0.130	0.060	0.100
P1.1.6 Unalloyed steel, annealed, 0.75 % C, Rm 915 N/mm ² , 270 HB	100	120	0.130	0.060	0.100
P1.1.7 Unalloyed steel, heat-treated, 0.75 % C, Rm 1020 N/mm ² , 300 HB	100	120	0.130	0.060	0.100
P2.1.1 Low-alloy steel, annealed, Rm 610 N/mm ² , 180 HB	100	120	0.130	0.060	0.100
P2.1.2 Low-alloy steel, heat-treated, Rm 930 N/mm ² , 275 HB	100	120	0.130	0.060	0.100
P2.1.3 Low-alloy steel, heat-treated, Rm 1020 N/mm ² , 300 HB	100	120	0.130	0.060	0.100
P2.1.4 Low-alloy steel, heat-treated, Rm 1190 N/mm ² , 350 HB	100	120	0.130	0.060	0.100
P3.1.1 High-alloy steel and tool steel, annealed, Rm 680 N/mm ² , 200 HB	100	120	0.130	0.060	0.100
P3.1.2 High-alloy steel and tool steel, hardened and tempered, Rm 1100 N/mm ² , 325 HB	100	120	0.130	0.060	0.100
M1.1.1 Stainless steel, ferritic/martensitic, with machining additives	90	110	0.100	0.045	0.075
M1.1.2 Stainless steel, ferritic/martensitic, annealed, Rm 680 N/mm ² , 200 HB	90	110	0.100	0.045	0.075
M1.1.3 Stainless steel, ferritic/martensitic, heat-treated, Rm 810 N/mm ² , 240 HB	90	110	0.100	0.045	0.075
M2.1.1 Stainless steel, austenitic, quenched, 180 HB	90	110	0.100	0.045	0.075
M2.2.1 Duplex steel, high-strength stainless steels	90	110	0.100	0.045	0.075
K1.1.1 Grey cast iron, pearlitic/ferritic, 180 HB	100	120	0.165	0.075	
K1.1.2 Grey cast iron, pearlitic/martensitic, 260 HB	100	120	0.165	0.075	
K1.2.1 Cast iron with spheroidal graphite, ferritic, 160 HB	100	120	0.165	0.075	
K1.2.2 Cast iron with spheroidal graphite, pearlitic, 250 HB	100	120	0.165	0.075	
K1.3.1 Malleable cast iron, ferritic, 130 HB	100	120	0.165	0.075	
K1.3.2 Malleable cast iron, pearlitic, 230 HB	100	120	0.165	0.075	
K2.1.1 Vermicular graphite cast iron (GJV)	100	120	0.130	0.060	
K2.2.1 Austenitic-ferritic spheroidal graphite cast iron (ADI)	100	120	0.130	0.060	
N1.1.1 Wrought aluminium alloys, non-hardened, 60 HB					
N1.1.2 Wrought aluminium alloys, hardened, 100 HB					
N2.1.1 Aluminium casting alloys, non-hardened, ≤ 12 % Si, 75 HB					
N2.1.2 Aluminium casting alloys, hardened, ≤ 12 % Si, 90 HB					
N2.1.3 Aluminium casting alloys, non-hardened, > 12 % Si, 130 HB					
N3.1.1 Copper and copper alloys: Free-machining alloy, Pb > 1 %					
N3.1.2 Copper and copper alloys: CuZn, CuSnZn					
N3.1.3 Copper and copper alloys: CuSn, lead-free copper and copper electrolyte					
N4.1.1 Non-metallic materials: Duroplastics, fibre-reinforced plastics					
N4.1.2 Non-metallic materials: Hard rubber, wood, etc.					
N4.1.3 Non-metallic materials: Graphite					
S1.1.1 Heat-resistant alloys, Fe-based, annealed, 200 HB					
S1.1.2 Heat-resistant alloys, Fe-based, hardened, 280 HB					
S1.1.3 Heat-resistant alloys, Ni- or Co-based, annealed, 250 HB					
S1.1.4 Heat-resistant alloys, Ni- or Co-based, hardened, 350 HB					
S1.1.5 Heat-resistant alloys, Ni- or Co-based, cast, 320 HB					
S2.1.1 Titanium alloys, pure titanium, Rm 400 N/mm ²					
S2.1.2 Titanium alloys, Alpha and Beta alloys, hardened, Rm 1050 N/mm ²					
H1.1.1 Hardened steel, hardened and tempered, < 55 HRC					
H1.1.2 Hardened steel, hardened and tempered, < 60 HRC					
H1.1.3 Hardened steel, hardened and tempered, > 60 HRC					
H2.1.1 Chilled cast iron, 400 HB					
H2.1.2 Chilled cast iron, hardened and tempered, < 55 HRC					



Parting off



Machining group	System 222		
	v _c (m/min)	NN neutral	NN L/R
		f (mm/rev)	
P1.1.1 Unalloyed steel, annealed, 0.15 % C, Rm 420 N/mm ² , 125 HB			
P1.1.2 Unalloyed steel, heat-treated, 0.15 % C, Rm 420 N/mm ² , 125 HB			
P1.1.3 Unalloyed steel, annealed, 0.45 % C, Rm 640 N/mm ² , 190 HB			
P1.1.4 Unalloyed steel, heat-treated, 0.45 % C, Rm 640 N/mm ² , 190 HB			
P1.1.5 Unalloyed steel, heat-treated, 0.45 % C, Rm 850 N/mm ² , 250 HB			
P1.1.6 Unalloyed steel, annealed, 0.75 % C, Rm 915 N/mm ² , 270 HB			
P1.1.7 Unalloyed steel, heat-treated, 0.75 % C, Rm 1020 N/mm ² , 300 HB			
P2.1.1 Low-alloy steel, annealed, Rm 610 N/mm ² , 180 HB			
P2.1.2 Low-alloy steel, heat-treated, Rm 930 N/mm ² , 275 HB			
P2.1.3 Low-alloy steel, heat-treated, Rm 1020 N/mm ² , 300 HB			
P2.1.4 Low-alloy steel, heat-treated, Rm 1190 N/mm ² , 350 HB			
P3.1.1 High-alloy steel and tool steel, annealed, Rm 680 N/mm ² , 200 HB			
P3.1.2 High-alloy steel and tool steel, hardened and tempered, Rm 1100 N/mm ² , 325 HB			
M1.1.1 Stainless steel, ferritic/martensitic, with machining additives			
M1.1.2 Stainless steel, ferritic/martensitic, annealed, Rm 680 N/mm ² , 200 HB			
M1.1.3 Stainless steel, ferritic/martensitic, heat-treated, Rm 810 N/mm ² , 240 HB			
M2.1.1 Stainless steel, austenitic, quenched, 180 HB			
M2.2.1 Duplex steel, high-strength stainless steels			
K1.1.1 Grey cast iron, pearlitic/ferritic, 180 HB			
K1.1.2 Grey cast iron, pearlitic/martensitic, 260 HB			
K1.2.1 Cast iron with spheroidal graphite, ferritic, 160 HB			
K1.2.2 Cast iron with spheroidal graphite, pearlitic, 250 HB			
K1.3.1 Malleable cast iron, ferritic, 130 HB			
K1.3.2 Malleable cast iron, pearlitic, 230 HB			
K2.1.1 Vermicular graphite cast iron (GJV)			
K2.2.1 Austenitic-ferritic spheroidal graphite cast iron (ADI)			
N1.1.1 Wrought aluminium alloys, non-hardened, 60 HB	400	0.150	0.100
N1.1.2 Wrought aluminium alloys, hardened, 100 HB	400	0.150	0.100
N2.1.1 Aluminium casting alloys, non-hardened, ≤ 12 % Si, 75 HB	400	0.150	0.100
N2.1.2 Aluminium casting alloys, hardened, ≤ 12 % Si, 90 HB	400	0.150	0.100
N2.1.3 Aluminium casting alloys, non-hardened, > 12 % Si, 130 HB	400	0.150	0.100
N3.1.1 Copper and copper alloys: Free-machining alloy, Pb > 1 %	400	0.150	0.100
N3.1.2 Copper and copper alloys: CuZn, CuSnZn	400	0.150	0.100
N3.1.3 Copper and copper alloys: CuSn, lead-free copper and copper electrolyte	400	0.150	0.100
N4.1.1 Non-metallic materials: Duroplastics, fibre-reinforced plastics	400	0.150	0.100
N4.1.2 Non-metallic materials: Hard rubber, wood, etc.	400	0.150	0.100
N4.1.3 Non-metallic materials: Graphite	400	0.150	0.100
S1.1.1 Heat-resistant alloys, Fe-based, annealed, 200 HB			
S1.1.2 Heat-resistant alloys, Fe-based, hardened, 280 HB			
S1.1.3 Heat-resistant alloys, Ni- or Co-based, annealed, 250 HB			
S1.1.4 Heat-resistant alloys, Ni- or Co-based, hardened, 350 HB			
S1.1.5 Heat-resistant alloys, Ni- or Co-based, cast, 320 HB			
S2.1.1 Titanium alloys, pure titanium, Rm 400 N/mm ²			
S2.1.2 Titanium alloys, Alpha and Beta alloys, hardened, Rm 1050 N/mm ²			
H1.1.1 Hardened steel, hardened and tempered, < 55 HRC			
H1.1.2 Hardened steel, hardened and tempered, < 60 HRC			
H1.1.3 Hardened steel, hardened and tempered, > 60 HRC			
H2.1.1 Chilled cast iron, 400 HB			
H2.1.2 Chilled cast iron, hardened and tempered, < 55 HRC			



System 222 for grooving and parting off

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