GUHRING

Refurbishing **to original quality**

Re-grinding and Re-coating Service

GUHRING – YOUR WORLD-WIDE PARTNER

Maximum economic efficiency

thanks to refurbishing to original quality

Even the most resilient tool will wear at some time when heavily stressed. Thanks to refurbishing to original geometries and coatings Guhring succeeds in re-producing the original performance of your tools.

Re-grinding prices and scope of service from page 6
Re-coating prices and scope of service from page 14

GUHR

Refurbishing to

Collection and delivery service

for in time logistics

Every service centre provides an in-house collection and delivery service. Therefore, we can process your orders creating time and cost savings.

in excess of 50 service centres

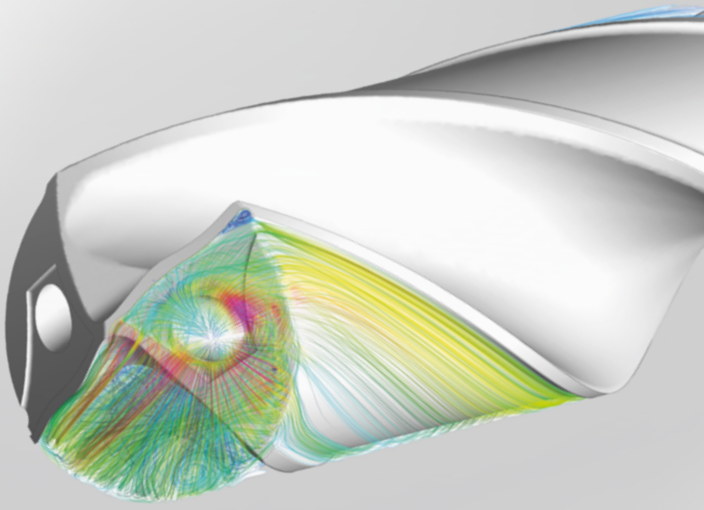
world-wide service network

Speed requires short distances. Therefore, we have established in excess of 50 service centres world-wide for our customers and are constantly widening the network. All service centres are equipped with state-of-the-art production machines and in-house developed coating systems.

Overview of locations in Europe: Page 4
Overview of locations in America, Africa and Asia: Page 17+18

RING

original quality



Service with manufacturer's know-how

Thanks to our comprehensive expertise in tool material manufacture, geometry development and in-house coating system construction we have the know-how in all areas relevant for the production of tools – and therefore in their refurbishment. World-wide uniform standards in production and service ensure that your tools continue to optimally fulfil all quality parameters.

Our service centres

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HSS DRILLS

BASIC PRICES for re-grinding HSS drills

	Twist drills	NC spotting drills	Centre drills	Core drills Z3
Diameter range	€ / piece	€ / piece	€ / piece	€ / piece
8 - 10	5.50	7.20	8.30	6.95
> 10 - 12	6.20	8.15	9.35	7.90
> 12 - 14	6.85	9.00	10.40	8.75
> 14 - 16	7.30	9.35	11.10	9.40
> 16 - 18	10.70	13.60	on request	13.70
> 18 - 20	12.30	15.40	on request	15.80
> 20 - 30	15.60	17.20	on request	19.90
> 30 - 40	21.40	on request	on request	27.40
> 40 - 50	28.25	on request	on request	37.05
> 50 - 60	35.35	on request	on request	45.40
> 60 - 80	42.00	on request	on request	on request
> 80 -100	52.50	on request	on request	on request
> 100 -120	on request	on request	on request	on request

All prices refer to bright finish tools. For coating, pre- and post-treatment see prices page 14.
Please observe our minimum order value of € 50.00.

Scope of service and re-grind prices for HSS twist drills to DIN 338, 340, 341, 345, 346, 1869, 1870 and 1897 as well as special designs. If not otherwise requested we manufacture the relieved cone point geometry to DIN with web thinning form A.
Other point geometries are of course possible for an additional charge.
Prices apply to standard wear. We reserve the right of assessment of existing wear features. Crumbling and very heavy wear will be invoiced at cost. Inscriptions, marking, special labelling, measuring protocols etc. involves greater expenditure and effort and is also invoiced at cost.

+ SURCHARGE protection chamfer, special point geometries or stepped tools

	Step drill 1st countersinking step	each additional countersinking step	Protection chamfer (for cast iron)	Centre and M point
Diameter range	€ / piece	€ / piece	€ / piece	€ / piece
8 - 10	6.00	5.50	2.00	7.80
> 10 - 12	6.80	6.25	2.50	8.75
> 12 - 14	7.50	6.90	2.50	9.20
> 14 - 16	8.15	7.45	2.50	9.20
> 16 - 18	11.90	10.95	3.40	11.25
> 18 - 20	13.60	12.60	3.40	11.25
> 20 - 30	17.60	16.20	3.70	14.20
> 30 - 40	24.55	22.70	3.90	on request
> 40 - 50	31.10	28.90	4.50	on request
> 50 - 60	39.20	37.50	5.10	on request
> 60 - 80	47.00	45.00	5.80	on request
> 80 - 100	56.50	55.80	6.80	on request

Scope of service and re-grind prices for step drills with relieved cone point geometry and web thinning form A to DIN 8374, 8375, 8376, 8377, 8378 and 8379 as well as special designs. If not requested otherwise we manufacture the relieved cone point geometry to DIN with web thinning form A.
Other point geometries are of course possible for an additional charge.
Prices apply to standard wear. We reserve the right of assessment of existing wear features. Crumbling and very heavy wear will be invoiced at cost.
Prices refer to tools with one step. For each additional step we apply a surcharge.

SOLID CARBIDE DRILLS

BASIC PRICES for re-grinding solid carbide drills*

	Solid carbide drills up to 12xD	Solid carbide NC spotting drills	Solid carbide radius drills RT 100 R	Ratio drills RT 100 S** up to 8xD	Solid carbide deep hole drills RT 100 T up to 40xD
Diameter range	€ / piece	€ / piece	€ / piece	€ / piece	€ / piece
2 - 6	12.50	8.50	19.20	15.00	34.70
> 6 - 8	13.20	9.30	20.50	15.85	46.60
> 8 - 10	14.00	10.00	21.50	16.80	49.90
> 10 - 12	16.90	12.20	26.20	20.30	53.50
> 12 - 14	22.00	16.00	31.90	26.40	57.50
> 14 - 16	23.50	17.30	34.80	28.20	-
> 16 - 18	25.00	18.00	40.40	30.00	-
> 18 - 20	26.50	18.50	43.00	31.80	-
> 20 - 30	32.50	-	-	-	-

All prices refer to bright finish tools. For coating, pre- and post-treatment see prices page 14.
Please observe our minimum order value of € 50.00.

Scope of service and re-grind prices for solid carbide drills to DIN, Ratio drills RT 100 U, RT 100 F,RT 100 VA, RT 100 HF, RT 80 U, RT 150 GG, RT 150 GN, FT 200 G, GS 200 U, GS 200 G, GS 200 F, Exclusive Line and solid carbide twist drills as well as similar tools. Other point geometries are of course possible for an additional charge.
Prices apply to standard wear. We reserve the right of assessment of existing wear features. Crumbling and very heavy wear will be invoiced at cost. Customer specific inscriptions, marking, special labelling, measuring protocols etc. involves greater expenditure and effort and is also invoiced at cost.

* axial metal removal max. 1 mm, the diameter is reduced depending on the back-taper value.
Please specify the minimum lengths and Ø tolerances in the order.

** RT 100 S receives standard de-coating. Please see our de-coating prices on page 14. For refurbishing the RT 100 S's micro-geometry see the surcharge for cutting edge preparation also on page 14.

+ SURCHARGE protection chamfer or stepped tools

	Step drill 1st countersinking step	each additional countersinking step	Protection chamfer (for cast iron)	Centre and M point
Diameter range	€ / piece	€ / piece	€ / piece	€ / piece
2 - 6	11.80	11.20	2.90	12.10
> 6 - 8	13.00	12.30	3.85	13.50
> 8 - 10	13.90	13.20	3.85	13.50
> 10 - 12	16.60	16.00	3.85	13.50
> 12 - 14	21.80	20.80	5.20	16.50
> 14 - 16	22.00	21.30	5.20	16.50
> 16 - 18	23.70	23.00	5.60	20.70
> 18 - 20	25.00	24.20	5.95	on request
> 20 - 30	31.50	29.80	6.90	on request

Scope of service and re-grind prices for step drills type RT 80, RT 100, RT 150 and GS 200 as well as similar tools.
Other point geometries are of course possible for an additional charge.
Prices apply to standard wear. We reserve the right of assessment of existing wear features.
Crumbling and very heavy wear will be invoiced at cost
Prices refer to tools with one step. For each additional step we apply a surcharge.

GUN DRILLS

BASIC PRICES for re-grinding carbide-tipped gun drills and solid carbide gun drills

	Single-fluted carbide-tipped gun drills EB 80	Two-fluted carbide tipped gun drills ZB 80	Solid carbide single-fluted gun drills EB 100
Diameter range	€ / piece	€ / piece	€ / piece
up to 2	-	-	16.50
> 2 - 6	15.00	17.50	16.50
> 6 - 10	16.00	23.90	18.00
> 10 - 14	18.50	31.30	22.50
> 14 - 18	19.00	37.50	-
> 18 - 22	22.50	41.40	-
> 22 - 26	26.00	on request	-
> 26 - 30	32.00	on request	-

All prices refer to bright finish tools. For coating, pre- and post-treatment see prices page 14.
Please observe our minimum order value of € 50.00.

Extra expense for aligning the gun drill is invoiced at cost. Customer specific inscription, marking, special labels, measuring protocol etc, connected with extra expense is also invoiced at cost.

COUNTERSINKS

BASIC PRICES for re-grinding countersinks

	HSS countersinks	Solid carbide countersinks*	HSS counterbores / pilot counterbores	Sol.carbide counterbores * / pilot counterbores
Diameter range	€ / piece	€ / piece	€ / piece	€ / piece
3 - 6	7.10	11.35	8.75	12.70
> 6 - 8	7.70	12.25	9.40	13.65
> 8 - 10	8.35	13.20	10.10	14.70
> 10 - 12	9.05	14.25	10.90	15.80
> 12 - 14	9.85	15.40	11.75	17.00
> 14 - 16	10.70	16.60	12.65	18.30
> 16 - 18	11.60	17.75	13.65	19.70
> 18 - 20	12.55	18.95	14.85	21.20
> 20 - 30	19.50	29.70	21.00	32.40
> 30 - 40	24.00	36.90	25.80	39.90
> 40 - 50	31.60	47.80	34.30	53.00
> 50 - 60	36.00	on request	38.80	on request
> 60 - 70	41.50	on request	44.70	on request
> 70 - 80	46.00	on request	49.50	on request
> 80 - 90	on request	on request	on request	on request
> 90 - 100	on request	on request	on request	on request

All prices refer to bright finish tools. For coating, pre- and post-treatment see prices page 14.
Please observe our minimum order value of € 50.00.

Prices apply to standard wear. We reserve the right of assessment of existing wear features. Crumbling and very heavy wear will be invoiced at cost. Customer specific inscriptions, marking, special labelling, measuring protocols etc. involves greater expenditure and effort and is also invoiced at cost.

* axial metal removal max. 1 mm, the diameter is reduced depending on the back-taper value.
Please specify minimum lengths and Ø-tolerances on order.

+ SURCHARGE for special forms

	from 4 cutting edges
Diameter range	€ / piece
3 - 6	3.30
> 6 - 8	3.30
> 8 - 10	3.30
> 10 - 12	3.50
> 12 - 14	3.70
> 14 - 16	3.90
> 16 - 18	4.20
> 18 - 20	4.60
> 20 - 30	5.30
> 30 - 40	6.10
> 40 - 50	8.40
> 50 - 60	9.50
> 60 - 70	11.60
> 70 - 80	13.30
> 80 - 90	14.20
> 90 - 100	15.30

REAMERS

BASIC PRICES for re-grinding reamers

	HSS reamers	Solid carbide reamers*	Solid carbide high-performance reamers HR 500*
Diameter range	€ / piece	€ / piece	€ / piece
up to 6	16.10	21.80	32.50
> 6 - 8	16.10	21.80	34.50
> 8 - 10	16.10	21.80	35.60
> 10 - 12	17.05	23.00	36.50
> 12 - 14	17.60	23.75	37.10
> 14 - 16	18.10	24.50	38.10
> 16 - 18	18.65	25.10	38.50
> 18 - 20	19.15	25.85	39.10
> 20 - 30	23.00	31.00	47.10
> 30 - 40	23.60	32.00	51.50
> 40 - 50	32.00	43.25	on request
> 50 - 60	38.85	52.40	on request
> 60 - 80	49.00	66.35	on request

All prices refer to bright finish tools. For coating, pre- and post-treatment see prices page 14.
All coated reamers receive a standard de-coating. Please see our de-coating prices on page 14.
The diameter of all reamers is checked during the refurbishment process.

Please observe our minimum order value of € 50.00.

Prices apply to standard wear. We reserve the right of assessment of existing wear features. Crumbling and very heavy wear will be invoiced at cost. Customer specific inscriptions, marking, special labelling, measuring protocols etc. involves greater expenditure and effort and is also invoiced at cost.

* Axial metal removal max. 1 mm. Always face ground on CNC machines.

+ SURCHARGE for cermet

	Cermet
Diameter range	€ / piece
up to 6	19.10 €
> 6 - 8	19.10 €
> 8 - 10	19.10 €
> 10 - 12	20.20 €
> 12 - 14	20.80 €
> 14 - 16	21.40 €
> 16 - 18	22.00 €
> 18 - 20	23.90 €
> 20 - 30	27.10 €
> 30 - 40	28.00 €
> 40 - 50	37.90 €
> 50 - 60	45.90 €
> 60 - 80	58.20 €

TAPS AND THREAD MILLING CUTTERS

BASIC PRICES for re-grinding taps and solid carbide thread milling cutters

	HSS taps	Solid carbide taps	Solid carbide thread milling cutters
Diameter range	€ / piece	€ / piece	€ / piece
up to 10	9.90	11.80	22.00
> 10 - 14	13.50	13.50	27.00
> 14 - 20	16.20	17.00	31.50
> 20 - 24	20.20	21.80	39.80
> 24 - 30	22.30	25.30	44.00
> 30 - 36	29.90	32.70	on request
> 36 - 40	32.00	36.90	on request
> 40 - 70	on request	on request	on request

All prices refer to bright finish tools. For coating, pre- and post-treatment see prices page 14.
Please observe our minimum order value of € 50.00.

Prices apply to standard wear. We reserve the right of assessment of existing wear features. Crumbling and very heavy wear will be invoiced at cost. Customer specific inscriptions, marking, special labelling, measuring protocols etc. involves greater expenditure and effort and is also invoiced at cost.

HSS MILLING CUTTERS

BASIC PRICES for re-grinding HSS milling cutters

	End mills* with up to 4 flutes	End mills* with up to 8 flutes	HSS ball nose milling cutters
Diameter range	€ / piece	€ / piece	€ / piece
6 - 8	8.80	11.50	16.00
> 8 - 10	8.80	11.50	16.00
> 10 - 12	11.55	14.80	21.00
> 12 - 14	12.65	17.05	23.00
> 14 - 16	14.10	19.80	26.00
> 16 - 18	15.20	20.90	27.60
> 18 - 20	16.40	22.55	29.80
> 20 - 25	20.90	26.90	38.00
> 25 - 32	23.10	35.20	42.00
> 32 - 40	26.95	36.85	49.00
> 40 - 50	31.90	45.00	on request
> 50 - 63	on request	on request	on request
> 63 - 80	on request	on request	on request

All prices refer to bright finish tools. For coating, pre- and post-treatment see prices page 14.
Please observe our minimum order value of € 50.00.

Prices apply to standard wear. We reserve the right of assessment of existing wear features. Crumbling and very heavy wear will be invoiced at cost. Customer specific inscriptions, marking, special labelling, measuring protocols etc. involves greater expenditure and effort and is also invoiced at cost.

* Modification of diameter -0.3 to -0.4 mm, length -1 to -1.5 mm with standard wear.

+ SURCHARGE for special dimensions, special forms, radii

	Roughing cutters	Corner radius per flute	Neck clearance
Diameter range	€ / piece	€ / piece	€ / piece
6 - 8	3.85	1.10	4.50
> 8 - 10	3.85	1.30	4.50
> 10 - 12	3.85	1.70	4.50
> 12 - 14	4.10	2.10	4.50
> 14 - 16	4.10	2.30	4.50
> 16 - 18	4.10	2.50	4.50
> 18 - 20	4.10	2.50	4.50
> 20 - 25	4.50	2.70	4.50
> 25 - 32	5.20	on request	on request
> 32 - 40	5.20	on request	on request
> 40 - 50	5.50	on request	on request
> 50 - 63	5.50	on request	on request
> 63 - 80	5.50	on request	on request

Please pay attention to:

Services for re-grinding HSS milling cutters

- flute geometry is not re-qualified. Re-qualification is carried out on request, invoiced at cost.
- Finishing cutters = grinding of fluting, face and diameter
- Roughing cutters = grinding of fluting and face
- Ball nose milling cutters = grinding of ball nose, not diameter, diameter on request, invoiced at cost.

See table for minimum diameter for tools (with straight face and corner radius):

	Finishing cutters (smooth cutting) minimum diameter (mm)		Roughing cutters (knuckle-type) (others-) minimal width of body clearance (mm)	
Nominal diameter	2 to 10 teeth	max. metal removal per side	3 to 5 teeth	6 to 8 teeth
6	5.3	0.35	1.0	0.8
8	7.1	0.45	1.0	0.8
10	8.9	0.55	1.5	1.2
12	10.7	0.65	1.5	1.2
14	12.5	0.75	2.0	1.6
16	14.2	0.90	2.0	1.6
18	16.0	1.00	3.0	2.0
20	17.8	1.10	3.0	2.0
25	22.3	1.35	4.0	3.0
30	26.7	1.65	5.0	4.0
32	28.5	1.75	5.0	4.0

SOLID CARBIDE MILLING CUTTERS

BASIC PRICES for re-grinding solid carbide milling cutters

	Solid carbide end mills with up to 4 flutes	Sol. carbide Ratio end mills RF 100 with up to 4 flutes	Sol. carbide Ratio end mills RF 100 DIVER / SPEED	Solid carbide ball nose milling cutters	Solid carbide chamfering milling cutters
Diameter range	€ / piece	€ / piece	€ / piece	€ / piece	€ / piece
6 - 8	9.45	12.80	15.80	18.50	12.25
> 8 - 10	11.35	15.50	18.95	19.50	13.20
> 10 - 12	15.00	19.90	23.80	20.50	14.25
> 12 - 14	16.30	21.80	25.70	25.00	15.40
> 14 - 16	17.75	23.70	28.20	25.00	16.60
> 16 - 18	19.20	25.80	30.30	33.00	17.75
> 18 - 20	20.50	27.50	33.00	33.00	18.95
> 20 - 25	29.90	39.90	-	37.50	-
> 25 - 40	34.50	45.50	-	42.50	-

All prices refer to bright finish tools. For coating, pre- and post-treatment see prices page 14.
Please observe our minimum order value of € 50.00.

Prices apply to standard wear. We reserve the right of assessment of existing wear features. Crumbling and very heavy wear will be invoiced at cost. Customer specific inscriptions, marking, special labelling, measuring protocols etc. involves greater expenditure and effort and is also invoiced at cost.

+ SURCHARGE for special dimensions, special forms, radii

	from 5 flutes	Roughing cutters	Corner radius per flute	Neck clearance
Diameter range	€ / piece	€ / piece	€ / piece	€ / piece
6 - 8	2.20	4.00	1.10	4.50
> 8 - 10	2.75	4.00	1.30	4.50
> 10 - 12	3.50	4.00	1.70	4.50
> 12 - 14	4.30	4.00	2.10	4.50
> 14 - 16	5.20	4.10	2.30	4.50
> 16 - 18	5.50	4.10	2.50	4.50
> 18 - 20	5.80	4.10	2.50	4.50
> 20 - 25	6.35	4.50	2.70	4.50
> 25 - 40	11.50	4.50	-	-

Please pay attention to:

Services for re-grinding solid carbide milling cutters

- flute geometry is not re-qualified. Re-qualification is carried out on request, invoiced at cost.
- Finishing cutters = grinding of fluting, face and diameter
- Roughing cutters = grinding of fluting and face
- Ball nose milling cutters = grinding of ball nose, not diameter, diameter on request, invoiced at cost.

See table for minimum diameter for tools (with straight face and corner radius):

	Finishing cutters (smooth cutting) minimum diameter (mm)		Roughing cutters (knuckle-type) (others-) minimal width of body clearance (mm)	
Nominal diameter	2 to 10 teeth	max. metal removal per side	3 to 5 teeth	6 to 8 teeth
6	5.3	0.35	1.0	0.8
8	7.1	0.45	1.0	0.8
10	8.9	0.55	1.5	1.2
12	10.7	0.65	1.5	1.2
14	12.5	0.75	2.0	1.6
16	14.2	0.90	2.0	1.6
18	16.0	1.00	3.0	2.0
20	17.8	1.10	3.0	2.0
25	22.3	1.35	4.0	3.0
30	26.7	1.65	5.0	4.0
32	28.5	1.75	5.0	4.0

+ SURCHARGE for pre- and post-treatment

	De-coating	Polishing	Cutting edge preparation RT 100 S
Diameter range	€ / piece	€ / piece	€ / piece
up to 6	3.30	4.50	18.90
> 6 - 8	3.30	4.50	18.90
> 8 - 10	3.30	4.50	18.90
> 10 - 12	3.30	5.00	18.90
> 12 - 14	4.75	5.50	18.90
> 14 - 16	4.75	6.00	18.90
> 16 - 18	4.75	8.00	18.90
> 18 - 20	4.75	8.50	18.90
> 20 - 30	4.75	10.00	-
> 30 - 40	4.75	13.70	-
> 40 - 50	5.00	14.50	-
> 50 - 60	on request	on request	-
> 60 - 80	on request	on request	-
> 80 - 100	on request	on request	-

De-coating of extra length tools is invoiced at cost.

+ SURCHARGE for coating

	Standard coatings *	Special coatings **	Head coating up to 12xD ***	Head coating up to 20xD ***	Head coating up to40xD ***
Diameter range	€ / piece	€ / piece	€ / piece	€ / piece	€ / piece
up to 6	4.60 €	8.00 €	8.30 €	12.45 €	16.60 €
> 6 - 8	4.60 €	8.00 €	8.30 €	12.45 €	16.60 €
> 8 - 10	4.60 €	8.00 €	8.30 €	12.45 €	16.60 €
> 10 - 12	5.30 €	9.20 €	9.60 €	14.40 €	17.90 €
> 12 - 14	5.90 €	10.20 €	10.70 €	16.05 €	19.00 €
> 14 - 16	6.35 €	11.00 €	11.50 €	17.25 €	-
> 16 - 18	8.60 €	14.80 €	15.50 €	23.25 €	-
> 18 - 20	9.25 €	16.00 €	16.70 €	25.05 €	-
> 20 - 30	11.20 €	19.40 €	-	-	-
> 30 - 40	11.80 €	20.80 €	-	-	-
> 40 - 50	12.90 €	on request	-	-	-
> 50 - 60	on request	on request	-	-	-
> 60 - 80	on request	on request	-	-	-
> 80 - 100	on request	on request	-	-	-

* TiN, TiCN, TiAlN, FIRE, nanoFIRE, SuperA, nanoA
** Signum, Zenit, ICE, Raptor, Sirius, Endurum
*** TiN, TiCN, TiAlN, FIRE, nanoFIRE, SuperA, nanoA, Signum, Zenit, ICE, Raptor, Sirius, Endurum

Differing coatings on request.
Coating of extra length tools is invoiced at cost.
Head coatings larger than 40xD is invoiced at cost.
Tools re-coated without prior de-coating have a larger diameter.

Please observe our minimum order value of € 50.00.

REPAIR SERVICE for GM 300

GM 300 article	Article no.	Repair/calibration	Recommendation	€ / piece
Hydraulic chucks	all	Clamping function Guhring product or comparable products		75.00
		Clamping function and length setting Guhring product or comparable products	with loss of clamping force	120.00
HMC clamping chuck	4618	Re-filling Leak test Repair	with loss of clamping force	75.00
Guhrosync	4601; 4576 4577; 4525	Inspection/repair	with loss of clamping force	Quote at cost
Synchro tapping chuck	4326; 4327 4340; 4342 4328; 4206	Inspection/repair		Quote at cost
HPC clamping chuck	4300; 4301 4244; 4243	Inspection/repair	Maintenance-free	Quote at cost
NC drilling chuck	4364; 4242 4240	Inspection/repair	Maintenance-free	Quote at cost
Floating holders	4167; 4169 4174; 4098 4117; 4116	Inspection/repair		Quote at cost
Length setting adaptor	4316; 4319 4315	Inspection/repair		Quote at cost
PQ 3000	4068	Inspection with turbine / battery replacement, calibration Repairs (quote at cost)	Once a year inspection / calibration	225.00

Please observe our minimum order value of € 50.00.

REPAIR SERVICE for GM 300

GM 300 article	Article no.	Repair/calibration	Recommendation	€ / piece
Clamping force inspection instrument	4973; 4974	Calibration Repairs (quote at cost)	Once a year inspection / calibration	217.50
Concentricity Proofing bars HSK/SK	4970; 4971	Calibration Repairs (quote at cost)	Once a year inspection / calibration	172.50
Senso 3000	4038	Disassembly, inspection, assembly, calibration Repairs (quote at cost)	Once a year inspection / calibration	225.00
Senso Guhrosync	-	Calibration Exchange / replacement parts etc., battery replacement Repairs	Once a year inspection / calibration	Quote at cost
MQL Check 3000	-	Inspection / battery replacement, calibration Additional expense according to quote	Once a year inspection / calibration	375.00
CC 3000	4076	Inspection Calibration refractometer Repair		Quote at cost
Measuring gauges for HSK spindles	4969	Calibration Repairs (quote at cost)	Once a year inspection / calibration	330.00
Measuring gauges for HSK clamping shoulders	4978	Calibration Repairs (quote at cost)	Once a year inspection / calibration	Quote at cost
HSK taper Measuring gauge	4968	Calibration Repairs	Once a year inspection / calibration	Quote at cost
Balancing masters	4975	Calibration	Once a year inspection / calibration	112.50

Please observe our minimum order value of € 50.00.

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