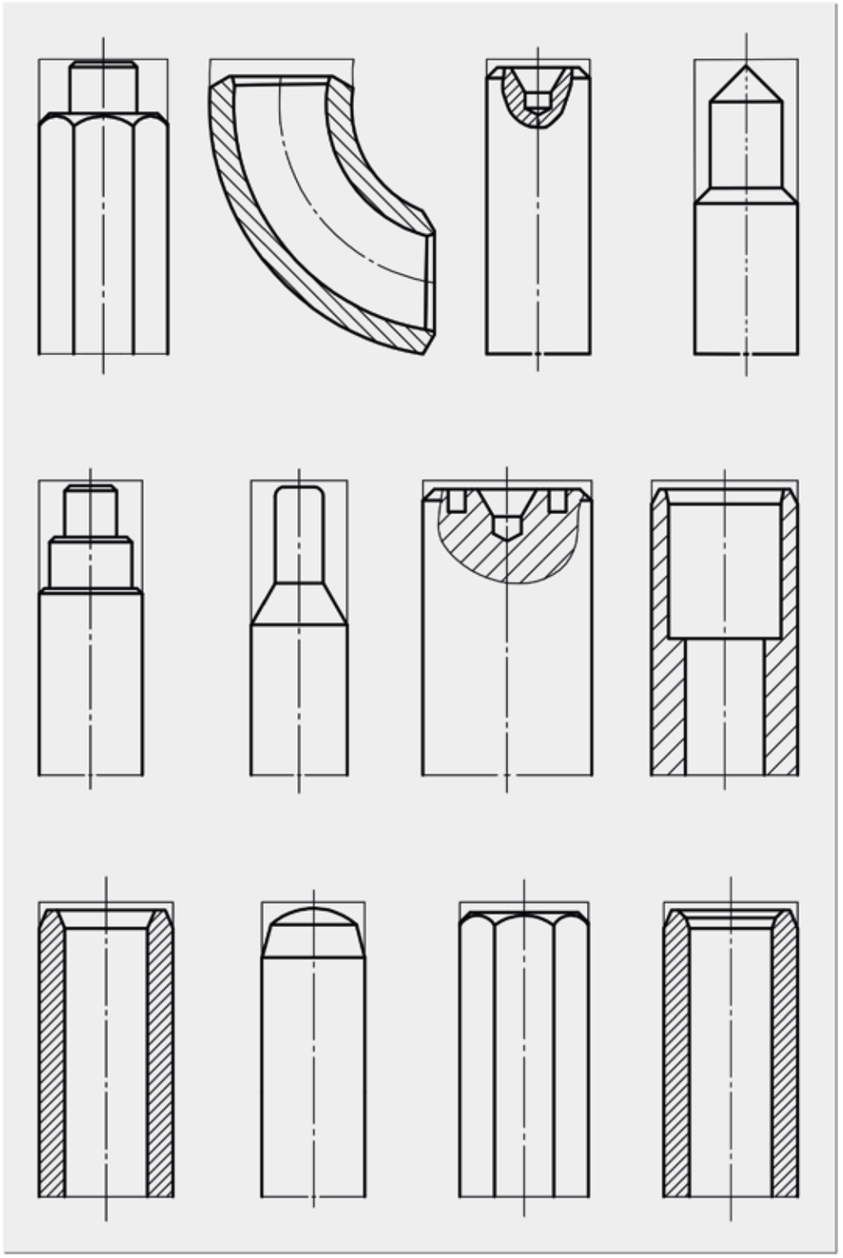
Leistritz
HIGH PRECISION TOOLS

END FINISHING TOOLS

Solid carbide tools and tooling solutions

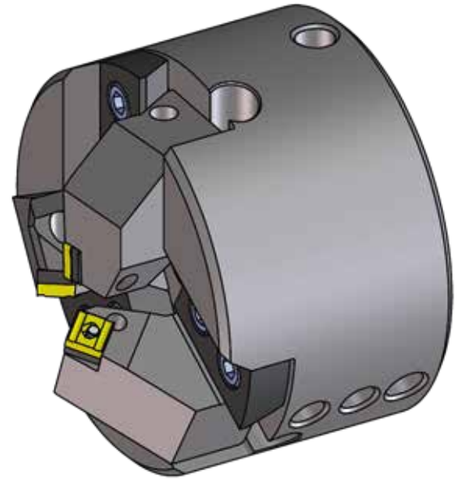
END FINISHING
WITH LEISTRITZ TOOLS



TOOL ***SYSTEM***

End finishing tools are technically a special type of milling tool that are normally used to manufacture turned parts. The tool rotates and the workpiece remains stationary. The various arranged cutting plate holders form a contour which is transferred to the workpiece by machining.

The tools have been standardized by Leistritz.



Customer benefits

- ↗ up to 5 cutting operations in one working cycle
- ↗ flexible tooling with a modular system
- ↗ Most of the tool heads and cutting plate holders can be supplied ex stock.
- ↗ A variety of workpiece diameters can be machined with the same tool as this is radially adjustable.
- ↗ Tool can be adapted to all machine tools.
- ↗ simple adjustment of the tools
- ↗ Workpiece remains stationary and tool is rotating.

Applications

- ↗ machining tubing, shafts and housings
- ↗ turning outside diameter and pointing of bars
- ↗ turning outside diameter of plugs
- ↗ facing and centering in preparation for turning between centers

Users

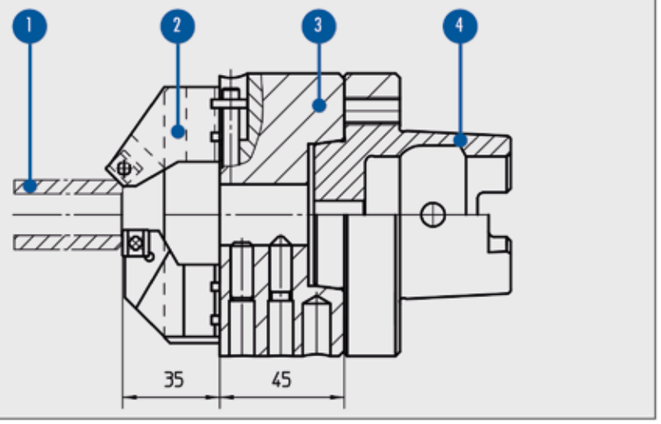
- ↗ pipe fitting manufacturers
- ↗ long piping production
- ↗ automotive industry
- ↗ fittings makers
- ↗ steel makers

Our service

Leistritz offers many years of experience in design and application engineering and can assemble the optimum tool for your needs from our stock program. These can be supplemented by custom-made components as required. Some examples can be found on pages 11 to 14.

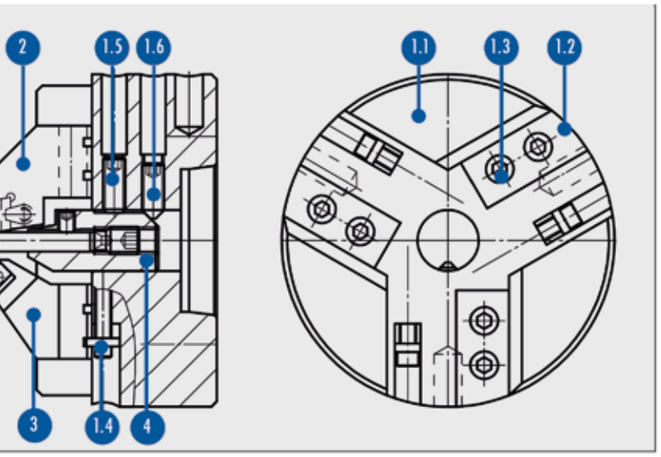
» Test us! We´ll find the solution! «

Overview



1. Work piece
2. Cutting plate holder
3. Tool head
4. Adapter

Design of the tool



1. Tool head (complete)
1.1 Basic body
1.2 Clamping plate
1.3 Cylinder screw
1.4 Adjusting screw
1.5 Set screw (clamping)
1.6 Set screw (adjustment)
2 Holder for facing operation
3 External chamfer holder
4 Clamping sleeve

Tool head selection

Tool-Ø	Tool Ø-range
45 (Mini)	0-20
65 (Mini)	0-40
102	0-50
120	0-70
140	0-90

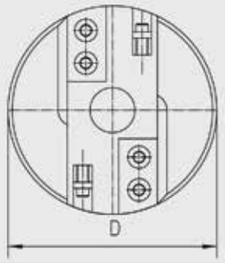
↗ Tool system

Cutting plate holders on the tool head are radially adjustable and a variety of workpiece diameters can be machined with the same holder.

Holders can also be exchanged between the various tool heads, letting you remain flexible for future machining jobs.

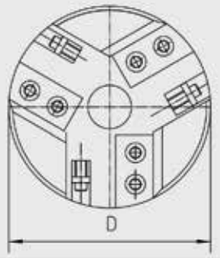
The adjustment range depends on the tool head diameter. The following pages show the corresponding adjustment ranges to simplify your choice.

For 2 clamping holders



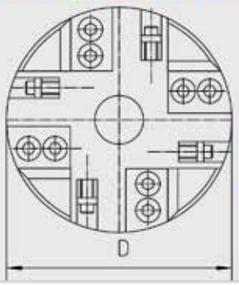
ORDER NUMBER	Work piece Ø	Tool Ø D	Clamping plate	Adjusting screw
EK 102-1002	0-50	102	Y 9802	Y 9801
EK 120-1002	0-70	120	Y 10014	Y 10142
EK 140-1002	0-90	140	Y 10047	Y 10142

For 3 clamping holders



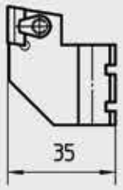
ORDER NUMBER	Work piece Ø	Tool Ø D	Clamping plate	Adjusting screw
EK 102-1003	0-50	102	Y 9802	Y 9801
EK 120-1003	0-70	120	Y 10014	Y 10142
EK 140-1003	0-90	140	Y 10047	Y 10142

For 4 clamping holders



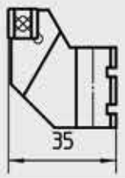
ORDER NUMBER	Work piece Ø	Tool Ø D	Clamping plate	Adjusting screw
EK 102-1004	0-50	102	Y 9967	Y 9801
EK 120-1004	0-70	120	Y 9890	Y 10142
EK 140-1004	0-90	140	Y 10047	Y 10142

Holder for facing operation



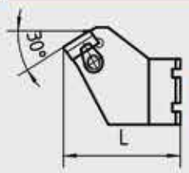
ORDER NUMBER	ø Adjustment range Tool head diameter ø 102	ø 120	ø 140	Holder-length	Spare parts Clamp-element	Double thread pin	Carbide base
EP 2112-9190	0-40	0-55	0-75	35	Y 2105	Y 2101	U 2112 R
EP 2112-9290	20-50	20-70	20-90	35	Y 2105	Y 2101	U 2112 R
EP 2115-9190	0-45	0-60	0-80	35	Y 2102	Y 2101	U 2115 R
EP 2115-9290	20-55	20-75	20-95	35	Y 2102	Y 2101	U 2115 R

Holder for facing operation



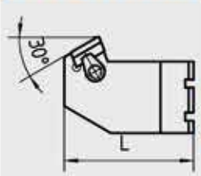
ORDER NUMBER	ø Adjustment range Tool head diameter ø 102	ø 120	ø 140	Holder-length	Spare parts Eccentric pin		Carbide base
EP 0809-9190	0-40	0-55	0-75	35	Y 0602		U 0809
EP 0809-9290	20-50	20-70	20-90	35	Y 0602		U 0809

Holder for external chamfering 30°



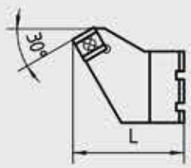
ORDER NUMBER	ø Adjustment range Tool head diameter ø 102	ø 120	ø 140	Holder-length	Spare parts Clamp-element	Double thread pin	Carbide base
EA 2112-8130	8-35	11-53	11-73	44.7	Y 2105	Y 2101	U 2112 L
EA 2112-8230	15-44	22-61	22-82	44.7	Y 2105	Y 2101	U 2112 L

Holder for external chamfering 30°



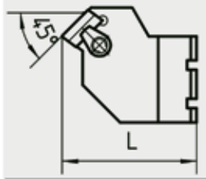
ORDER NUMBER	ø Adjustment range Tool head diameter ø 102	ø 120	ø 140	Holder-length	Spare parts Clamp-element	Double thread pin	Carbide base
EA 2112-9130	10-30	10-48	10-68	47	Y 2105	Y 2101	U 2112 R
EA 2112-9230	30-40	30-60	30-80	47	Y 2105	Y 2101	U 2112 R

Holder for external chamfering 30°



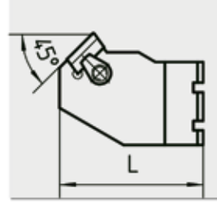
ORDER NUMBER	ø Adjustment range Tool head diameter ø 102	ø 120	ø 140	Holder-length	Spare parts Eccentric pin		Carbide base
EA 0809-8130	10-25	15-45	15-65	42.1	Y 0602		U 0809
EA 0809-8230	25-40	30-60	30-80	42.1	Y 0602		U 0809
EA 0809-8330	35-50	40-70	40-90	42.1	Y 0602		U 0809

Holder for external chamfering 45°



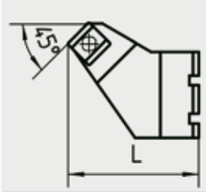
ORDER NUMBER	ø Adjustment range Tool head diameter ø 102	ø 120	ø 140	Holder-length	Spare parts Clamp-element	Double thread pin	Carbide base
EA 2112-8145	10-30	10-48	10-68	42.2	Y 2105	Y 2101	U 2112 L
EA 2112-8245	30-50	30-78	30-88	42.2	Y 2105	Y 2101	U 2112 L

Holder for external chamfering 45°



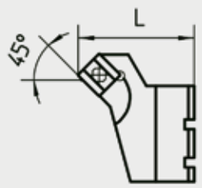
ORDER NUMBER	ø Adjustment range Tool head diameter ø 102	ø 120	ø 140	Holder-length	Spare parts Clamp-element	Double thread pin	Carbide base
EA 2112-9145	10-30	10-48	10-68	45	Y 2105	Y 2101	U 2112 R
EA 2112-9245	30-40	30-60	30-80	45	Y 2105	Y 2101	U 2112 R

Holder for external chamfering 45°



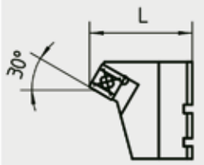
ORDER NUMBER	ø Adjustment range Tool head diameter ø 102	ø 120	ø 140	Holder-length	Spare parts Eccentric pin		Carbide base
EA 0809-8145	10-25	10-40	10-60	41	Y 0602		U 0809
EA 0809-8245	25-40	30-45	30-75	41	Y 0602		U 0809
EA 0809-8345	40-50	40-70	40-90	41	Y 0602		U 0809

Holder for internal chamfer 45°



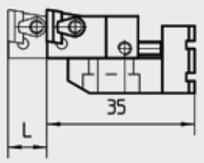
ORDER NUMBER	ø Adjustment range Tool head diameter ø 102	ø 120	ø 140	Holder-length	Spare parts Eccentric pin		Carbide base
EI 0809-6145	10-25	15-45	15-65	36.4	Y 0606		Y 9962
EI 0809-6245	25-40	30-60	30-80	36.4	Y 0606		Y 9962
EI 0809-6345	35-50	40-70	40-90	36.4	Y 0606		Y 9962

Holder for internal chamfer 30°



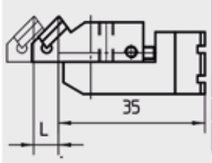
ORDER NUMBER	ø Adjustment range Tool head diameter ø 102	ø 120	ø 140	Holder-length	Spare parts Eccentric pin		Carbide base
EI 0809-6130	15-30	15-45	15-67	37.8	Y 0606		Y 9962
EI 0809-6230	25-45	30-65	30-85	37.8	Y 0606		Y 9962

Adjustable long. turning holder 90°



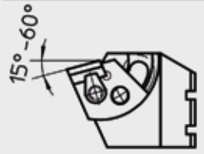
ORDER NUMBER	ø Adjustment range Tool head diameter ø 102	ø 120	ø 140	Holder-length	Spare parts Clamp-element	Double thread pin	Carbide base
EÜ 2112-1090	10-30	15-50	15-60	35-45	Y 2105	Y 2101	U 2112 R
EÜ 2112-2090	10-30	15-50	15-60	45-55	Y 2105	Y 2101	U 2112 R
EÜ 2112-3090	10-30	15-50	15-60	55-65	Y 2105	Y 2101	U 2112 R

Adjustable long. turning holder 45°



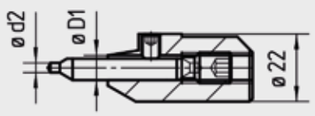
ORDER NUMBER	ø Adjustment range Tool head diameter ø 102	ø 120	ø 140	Holder-length	Spare parts Clamp-element	Double thread pin	Carbide base
EÜ 2112-1045	10-30	15-50	15-60	46-56	Y 2105	Y 2101	U 2112 R
EÜ 2112-2045	10-30	15-50	15-60	56-66	Y 2105	Y 2101	U 2112 R
EÜ 2112-3045	10-30	15-50	15-60	66-76	Y 2105	Y 2101	U 2112 R

Adjustable holder for chamfering 15°-60°



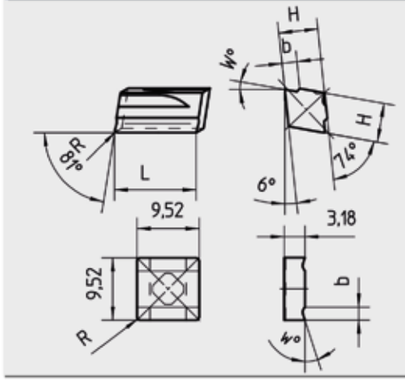
ORDER NUMBER	ø Adjustment range Tool head diameter ø 102	ø 120	ø 140	Holder-length	Spare parts Clamp-element	Double thread pin	Carbide base
EV 2112-1560	12-32	22-52	22-72	15-60	Y 2105	Y 2106	---

Clamping sleeves and center drills



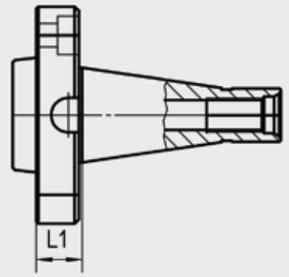
Clamping sleeve Order number	ø-D1	Stopper Order number	Center drill Order number DIN 333 Form A	ø d2
ES 0040-160	4	Y 9502	EZ 333-0160	1.6
ES 0050-200	5	Y 9503	EZ 333-0200	2.0
ES 0063-250	6.3	Y 9504	EZ 333-0250	2.5
ES 0080-315	8	Y 9505	EZ 333-0315	3.15
ES 0100-400	10	Y 10027	EZ 333-0400	4.0
ES 0125-500	12.5	Y 10720	EZ 333-0500	5.0
ES 0160-630	16	Y 10573	EZ 333-0630	6.3

Indexable inserts

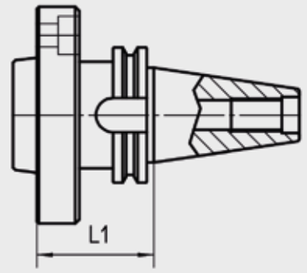


ORDER NUMBER	L	H	r	b	w
W 2112-0418 3121 R/LY	12	5.5	0.4	1.8	10°
W 2112-0422 3121 R/LY	12	5.5	0.4	2.2	10°
W 2112-0426 3121 R/LY	12	5.5	0.4	2.6	10°
W 2112-0830 3121 R/LY	12	5.5	0.8	3.0	10°
W 2112-0426 1721 R/LY	12	5,5	0.4	2.6	18°
W 2115-0426 3121 R/LY	15	6.5	0.4	2.6	10°
W 2115-0830 3121 R/LY	15	6.5	0.8	3.0	10°
W 2115-0426 1721 R/LY	15	6.5	0.4	2,6	18°
W 2115-0830 1721 R/LY	15	6.5	0.8	3.0	18°
W 0809-0000 3026 N			0.4	2.4	18
W 0809-0000 3027 N			0.4	1.8	18
W 0809-0000 3126 N			0.4	2.4	18

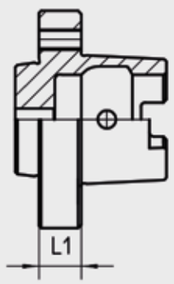
STANDARD ADAPTER



ORDER NUMBER	Size	L 1
EZF 030-2080	SK 30	21,6
EZF 040-2080	SK 40	21,6
EZF 050-2080	SK 50	33,2



ORDER NUMBER	Size	L 1
EY 10287	SK 40	55

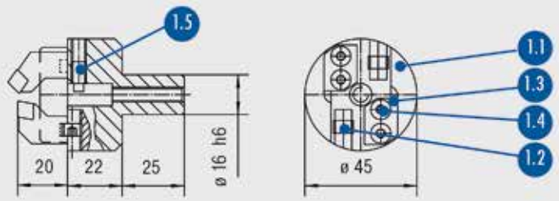


ORDER NUMBER	Size	L 1
EZF 063-69893-C*	HSK 63	20
EZF 080-69893-C*	HSK 80	20

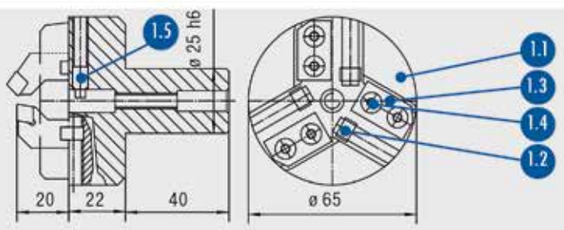
*Tool head has to be adjusted

» We can adapt to any type of machine – further adapters upon request! «

MINI END FINISHING TOOL



Pos.-No.	Name	ORDER NUMBER
1.1-1.5	Tool head	EK 045-1002
1.1	Basic body	Y 11444
1.2	Adjusting screw	Y 11436
1.3	Clamping plate	Y 11445
1.4	Screw	7760361
1.5	Set screw	7760323

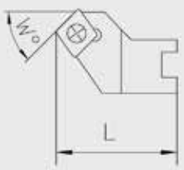


Pos.-No.	Name	ORDER NUMBER
1.1-1.5	Tool head	EK 065-1003
1.1	Basic body	Y 11443
1.2	Adjusting screw	Y 11436
1.3	Clamping plate	Y 11446
1.4	Screw	7760361
1.5	Set screw	7760323

Holder for facing operation

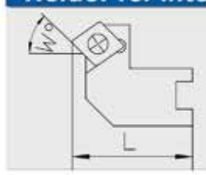
ORDER NUMBER	Ø - Adjustment range Tool head diameter Ø 45	Ø 65	Holder length	Torxscrew
EP CCMT-0602 9190	0-20	0-40	20	7762156

Holder for external chamfer



ORDER NUMBER	Cham. angle	Max. Cham. width	Ø -Adjustment range Tool head diameter Ø 45	Ø 65	Holder length	Torx screw
EA CCMT-0602 8145	45°	3	2-10	2-30	23,8	7762156
EA CCMT-0602 8245	45°	3	10-15	10-35	23,8	7762156
EA CCMT-0602 8345	45°	3	15-20	16-41	23,8	7762156
EA CCMT-0602 8130	30°	3	2-11	2-30	24,6	7762156
EA CCMT-0602 8230	30°	3	10-17	10-37	24,6	7762156
EA CCMT-0602 8330	30°	3	17-23	17-43	24,6	7762156

Holder for internal chamfer



ORDER NUMBER	Cham. angle	Max. Cham. width	Ø -Adjustment range Tool head diameter Ø 45	Ø 65	Holder length	Torx screw
EI CCMT-0602 6145	45°	2	7-15	7-33	22	7762156
EI CCMT-0602 6245	45°	2	15-23	13-40	22	7762156

Clamping sleeve

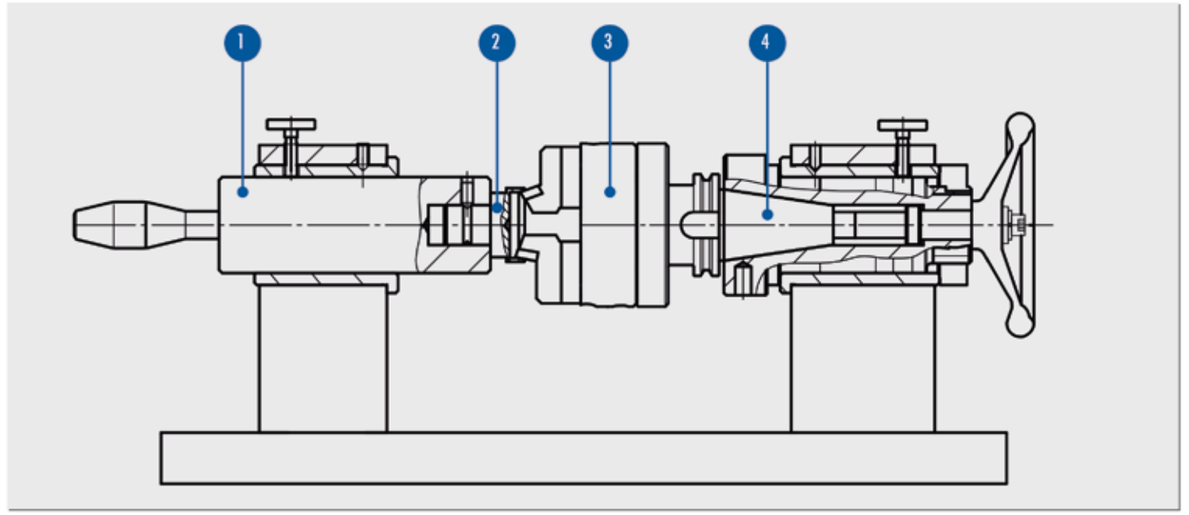
ORDER NUMBER Clamping sleeve	Ø-D	Order no. Stopper
ES1 0063-250	6,3	Y 11448
ES1 0050-200	5	Y 11448
ES1 0040-160	4	Y 11447

Indexable insert

CCMT 0602 04

ADJUSTING DEVICE

The adjusting device makes it possible to pre-set tools outside the machine.

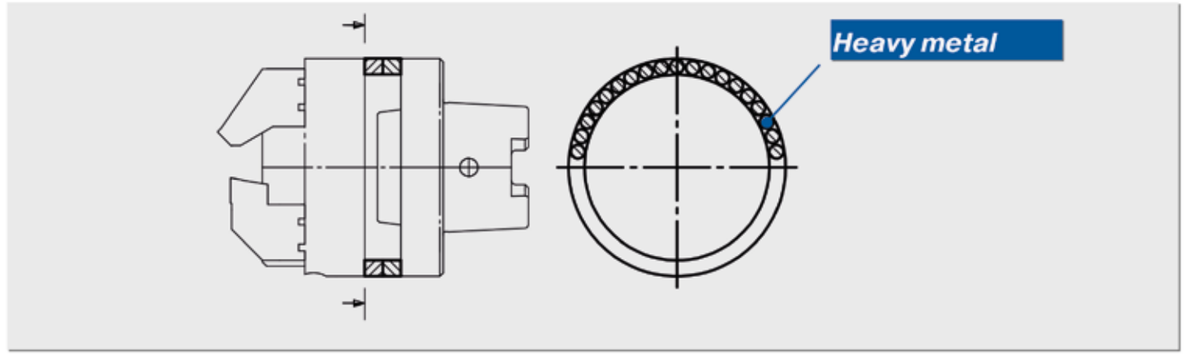


1 Spindle
2 Master piece
3 End finishing tool
4 Adapter

- ↗ time-savings by pre-setting the next tool during machining
- ↗ prevents crashes during setting routines
- ↗ All holders can be mechanically pre-set as opposed to visually, because when transmitted light is used, the holders mutually block the view.

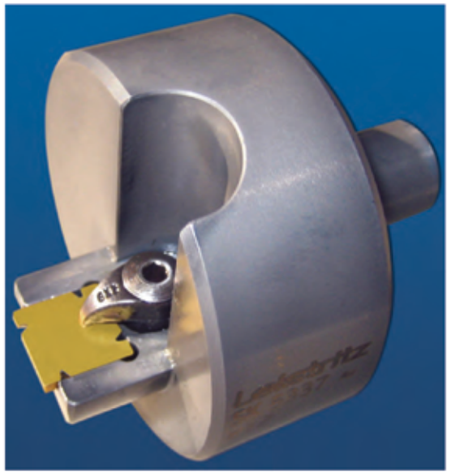
BALANCING RING PAIR

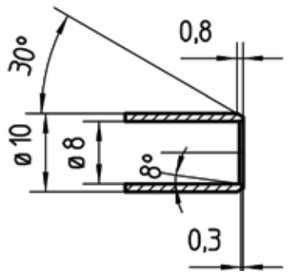
The imbalance caused by adjustments of an end finishing tool poses no problems for a very stable machine. However, the effects of the imbalance become increasingly noticeable when the machine is of a weaker design or when an absolutely precise plane surface is required. After adjusting the tool holders to the workpiece, the tool head can be balanced by turning the balancing rings. A stationary or portable balancing device shows the needed angle between the two balancing rings.



TUBE CHAMFERING HEAD

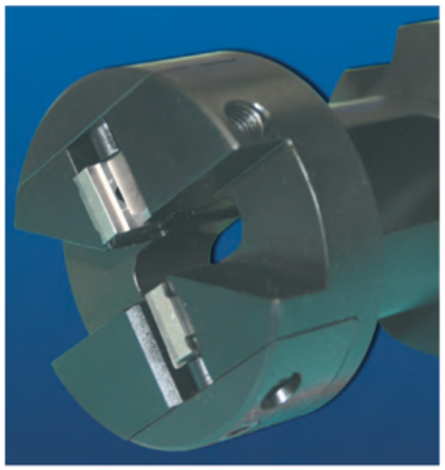
- ↗ Each cutting edge on this tool can replace at least 3 conventional cutters (facing, internal chamfering, external chamfering).
- ↗ Dimensions can be altered by changing the indexable insert with the same carrier tool.
- ↗ indexable insert with 4 cutting edges to match your workpiece
- ↗ simple and precise plate exchange with a high degree of repeating accuracy
- ↗ radii and special forms available on request
- ↗ internal pipe diameters from Ø 4
- ↗ wall thicknesses 0.5 – 5 mm
- ↗ no pre-setting necessary





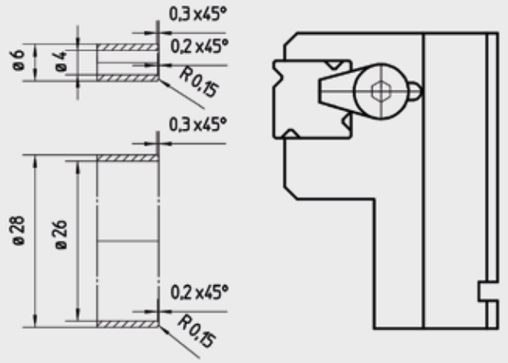
PARING TOOL

- ↗ rational diameter reduction by up to 4 indexable inserts
- ↗ high concentricity through individually adjustable plates
- ↗ stable tool design



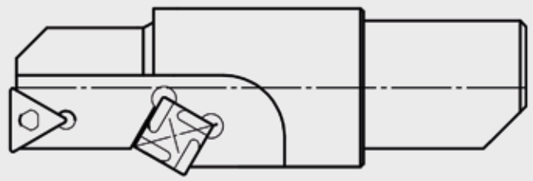
SPECIAL TOOLS

Indexable profiled insert



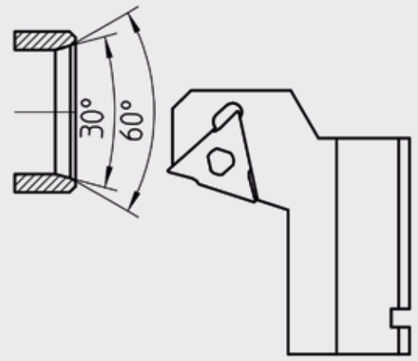
This tried and tested insert from the tube chamfering head with its four equal cutting edges can also be used on an adjustable holder and a tool head from stock. This makes it possible to economically machine related items with the same contour and various pipe diameters.

Boring bar



A **boring bar** can also be clamped in the center bore of the end finishing tool instead of a clamping sleeve for drills, for additional boring routines.

Multiple internal chamfering



Indexable profiled inserts have proven their worth in the machining of:
- ↗ double or **multiple internal chamfers**
- ↗ internal chamfers with a **radius transition** to the end face

NEW

TOP-TURN

The perfect end machining from 1 mm diameter

The two-part mold consists of a basic holder, which can be manufactured with individual shank designs on request, and a replaceable mold plate with up to four cutting edges. The unused cutting edges lie safely protected in a comprehensive plate seat. The real innovation lies in the special design of the cutting geometry of the forming plates. Whether classic facing and chamfering or a specific profile contour, many things can be produced in a single operation.

Vorteile:

- ↗ No displacement of the workpiece end free of burrs
- ↗ Up to four cutting edges per change plate
- ↗ Remaining cutting edges are protected in the insert seat
- ↗ Basic body can be designed with different machine interfaces
- ↗ Different profile plates can be used in one basic body
- ↗ Optionally with internal coolant supply
- ↗ Highest changeover accuracy

» Up to four cutting edges per plate ensure maximum economy and efficiency!

E-MAIL INQUIRY: produktionstechnik@leistritz.com

Inquiry for end finishing tools

To:
Leistritz Produktionstechnik GmbH
Dept.: VKW - Carbide Tools
Leistritzstr. 1-11
92714 Pleystein / Germany

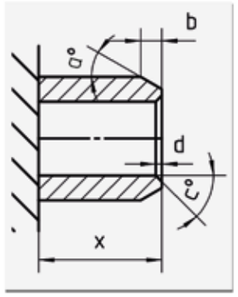
Sender:
Company:
Contact person:
Street:
ZIP-Code:
Town:
Phone:
Fax:
E-mail:

Tool:

Tool diameter max.: mm
Tool length max.: mm
Tool holder: mm
(e.g.: DIN 2080-SK)

Workpiece:

Workpiece drawing enclosed ❑ yes ❑ no
Material:



Processing required:

❑ Facing
❑ External chamfer: → Angle a: ____° Length b: ____mm
❑ Internal chamfer: → Angle c: ____° Length d: ____mm
❑ Long. turning: → Diameter: ____mm Length: ____mm
❑ Centering → DIN 332 Form: ____ d: ____mm
Unclamping length → X: min. ____mm

Machine:

Type:
Driving power: kW

Number of items:

Tool heads: pcs
Holders: pcs
Indexable inserts: pcs
Desired delivery date:

Leistritz
HIGH PRECISION TOOLS

PRODUCTION TECHNOLOGY

Available for you all over the world

Leistritz Produktionstechnik GmbH | Leistritz 1-11 | 92714 Pleystein | Germany
T +49 9654 89 - 0 | produktionstechnik@leistritz.com

www.leistritz.com

LPT-12 en 06/18 0,3' fr