OptoTech

OptoTech
a schunk company

Product Catalogue

Consumables
Precision Optics

Content

Introduction: OptoTech Consumables & Tooling

The best machines and systems can only provide top performance if the tools and consumables are ideally matched to the process. OptoTech's range of consumables provides you with a comprehensive solution for all of your applications. All of our products have been extensively tested and specially matched to our machines and systems. Some of our tool concepts are unique. thus underscoring the cutting-edge technology of our processes. Optimised production is only made possible by combining our machines with high-quality tools and consumables. Our range of offerings includes all types of grinding and polishing tools, cooling lubricants and polishing fluids, as well as special tools, special adhesives, protective lacquers and films, polishing foils and polishing pads.

Every lens has its own character, and thus we make it possible to adjust standard tools to customer-specific applications at any time. Upon request, we can even supply you with the entire manufacturing process for an optical component. As a company with more than 30 years of experience in the field of optics machine manufacturing, OptoTech always provides you with a complete solution from a single source.

Smart Solutions for Professionals

Coolant KE 500

KE 500 is a mineral oil free water soluble coolant for processing optical glass with diamond tools.

Technical Data

Colour:	yellow
Viscosity (20°C):	12 mm²/s
pH-Value:	9.3
Refractometer factor:	1.8
Concentration:	2% to 4%

Comment

KE 500 is free from phenols, nitrite, silicone and PCB/PCT, PTBB as well as other dangerous and/or raw materials with labelling obligation. Further advantages of KE 500 are:

- high corrosion protection
- low foaming
- good machine care
- very environmentally-friendly
- good skin tolerance

Packing units on request

Art. No.: KM-28-0002

Also available: Compatible **de-foamer**

Art. No.: KM-28-0001

Coolants

Coolant Fluid G44

Fluid G 44 is a full synthetic, mineral oil free water soluble coolant for processing ceramics, flat-, optical- and crystal glass. It can also be used for processing steel and non iron metals like copper.

Technical Data

Colour:	light yellow
Viscosity (20°C):	8mm²/s
pH-Value:	9.4
Refractometer factor:	2.0
Concentration:	3% to 4%

Comment

Fluid G 44 is free from chlorine, phenols, nitrite, silicone, PCB/PCT and PTBB as well as other dangerous and/or raw materials with labelling obligation.
Further advantages of Fluid G 44 are:

- high economic
- low foaming
- good rust protection and cooling impact
- good rinsing
- good skin tolerance

Packing units on request

Art. No.: KM-29-0004

Smart Solutions for Professionals

Coolants

Coolant Fluid G 46

Fluid G 46 is a full synthetic, mineral oil free water soluble coolant for processing ceramics, flat-, optical- and crystal glass. It can also be used for processing steel and non iron metals like copper.

Technical Data

Colour:	light yellow
Viscosity (20°C):	8 mm²/s
pH-Value:	9.4
Refractometer factor:	2.0
Concentration:	3% to 4%

Comment

Fluid G 46 is free from chlorine, phenols, nitrite, silicone, PCB/PCT and PTBB as well as other dangerous and/or raw materials with labelling obligation.

Further advantages of Fluid G 46 are:

- high economic
- low foaming
- good rust protection and cooling impact
- good rinsing
- good skin tolerance

Packing units on request

Art. No.: KM-29-0003

Coolant Leko-Fluid 16 DL

Leko-Fluid 16 DL is a full synthetic, mineral oil free water soluble coolant for processing ceramics, flat-, optical- and crystal glass. It can also be used for processing steel and non iron metals like copper. Developed to improve the processing of quartz glass at lowest possible concentrations (3 %).

Technical Data
Colour: light yellow
Viscosity (20°C):   8 mm²/s
pH-Value: 9.4
Refractometer factor: 1.4
Concentration: 3% to 5%

Comment
Leko-Fluid 16 DL is free from chlorine, phenols, nitrite, silicone, PCB/PCT and PTBB as well as other dangerous and/or raw materials with labelling obligation.
Further advantages of Leko-Fluid 16 DL are:

- high economic due to low concentration
- low foaming
- good rust protection and cooling impact
- good rinsing
- good skin tolerance

Packing units on request

Art. No.: KM-29-0005

Also available: Compatible **de-foamer**

Art. No.: KM-29-0007

Coolants

Smart Solutions for Professionals

Centering Oil ZO 100 / ZO 500 S

ZO 100 is a high performance coolant oil for generating and centering precision optics with diamond tools.

Technical Data

Colour:	neutral
Viscosity (40°C):	7.2 mm²/s
Flashpoint:	155°C

Art. No.: KM-22-0002

ZO 500S is a high performance coolant oil for generating and centering precision optics with diamond tools.

Technical Data

Colour:	neutral
Viscosity (40°C):	4.3 mm²/s
Flashpoint:	128°C

Comment

ZO 500S is free from phenols, PCB/PCT, PTBB, chlorine zinc and barium. Further advantages of ZO 500S are:

- good skin tolerance
- low foaming
- little mist formation
- high efficient
- good sedimentation

Packing units on request

Art. No.: KM-29-1201

PU-Foil

Our polyurethane foil perfectly suits for polishing precision lenses, ophthalmic lenses, flat optics or ceramic surfaces. The Polyurethane, which is made up of millions of porosities, is also available as drenched material. The drenching enhances the action and increases stock removal, while minimizing free particles that can contribute to scratching. Even with the drenched material it requires the usage of polishing slurries like cerium- or zirconium oxide.

Dimensions:
Standard Sheet: 1400 mm x 580 mm

Standard Thickness:
0.51mm; 0.81mm
On request:
1.02 mm; 1.27mm
2.03 mm; 3.18 mm; 6.35 mm; 12.7 mm

Sample applications PU Foil

Type	Colour/Filled	Shore „D"	Applications
LP 26	pink / Zirconium Oxide	33-43	camera lenses, flat glass, mirrors
GR 35	gray / Zirconium Oxide	33-43	plano optics, micro optics, round optics
LP 46	dark green / Zirconium Oxide	20-30	sapphire, TV screens

Others on request

Pencil

STAEDTLER Lumcolor refillable pen. Especially suited for use on PU-Foil.

Colour: red

Art. No.: GE-15-0008   Pencil
Art. No.: GE-15-0009   Refill Leads

Smart Solutions for Professionals

Novotext

Novotext is a high performance polishing ground based on textile fibre strengthened duroplast which is very suitable for polishing micro optics (Radius 1 mm to 7 mm).
This easy to handle rod shaped material is available in different diameters:

Individual sizes and dimensions on request.

Novotext is useable with all kind of polishing slurry types.

Art. No.: 01013300000635   *Ø 8 mm*
Art. No.: 01013300001000   *Ø 10 mm*
Art. No.: 01013300001200   *Ø 12 mm*
Art. No.: 01013300001300   *Ø 13 mm*
Art. No.: 01013300001500   *Ø 15 mm*
Art. No.: 01013300001600   *Ø 16 mm*
Art. No.: 01013300002000   *Ø 20 mm*
Art. No.: 01013300002500   *Ø 25 mm*
Art. No.: 01013300003000   *Ø 30 mm*
Art. No.: 01013300003180   *Ø 32 mm*
Art. No.: 01013300003500   *Ø 35 mm*
Art. No.: 01013300003810   *Ø 38 mm*
Art. No.: 01013300004000   *Ø 40 mm*
Art. No.: 01013300004500   *Ø 45 mm*
Art. No.: 01013300005000   *Ø 50 mm*
Art. No.: 01013300005500   *Ø 55 mm*
Art. No.: 01013300006000   *Ø 60 mm*
Art. No.: 01013300007000   *Ø 70 mm*
Art. No.: 01013300008000   *Ø 80 mm*
Art. No.: 01013300010000   *Ø 100 mm*

Synthetic Resin

For stress-free cementing of lenses and prisms onto blocks. Also available as a cementing foil on a cotton backing. Melting point approx. 60°C. Oil proof.

Soluble in Parts-Ready and Acetone

Art. No.: KK-17-3201

Polishing Pitch

Polishing material based on natural resin for polishing precision optics. Our Polishing pitch is available in three degrees of hardness: soft, medium hard and hard.

Art. No.: 910-60-0023   soft - 23
Art. No.: 910-60-0028   medium - 27
Art. No.: 910-60-0037   hard - 37
Art. No.: 910-60-0043   hard - 43

Polishing Wax

Polishing wax made of natural materials such as beeswax, colophonium and paraffin. This polishing wax can be used for many optical applications, e.g. for polishing plano-surfaces and for cementing lenses and prisms. Ideal for stress-free cementing of complex lenses and prisms.

Melting point: approx. 60 to 70°C

Art. No.: KK-17-3202   medium
Art. No.: KK-36-0001   hard

Polishing Pitch & Polishing Wax

Smart Solutions for Professionals

Cerox / Opaline

Polishing Powder

Cerox 1663 is a rare earth oxide based powder particularly suited for polishing ophthalmic lenses (mass production and prescription) and optical glass. This product provides excellent suspension characteristics, a high polishing efficiency and high cleanliness.

Technical Data:
pH-value:	6.0 to 7.0
Colour:	white
Particle size:	0.9 to 1.3 µm

Art. No.: PM-19-2201   Cerox 1663

Opaline is an extremely pure (white) cerium oxide compound. Strict control over the entire critical parameters (hardness, shape, size, and allocation) make Opaline the perfect choice for high precision polishing of all types of glass materials that require a critical surface .

Technical Data:
pH-value:	7.0
Particle size:	0.4 to 1.0 µm
Colour:	white
Delivery units:	20 kg Containers

Art. No.: PM-17-2203   Opaline

CERI 5005 Cerium Oxide

Colour:	white powder
pH-value:	5.8 to 7.5
Particle size:	D50…1.1 to 1.8 µm
Concentration:	5 to 10% solid
Delivery units:	20 kg Containers

Art. No.: PM-14-2202   CERI 5005

SRS 848 Cerium Oxide powder

pH-value:	3.75 to 4.75
Particle size:	0.4 to 1.0 µm
Concentration:	5 to 10%
Suspensions treated	
Delivery units:	20 kg Containers

Art. No.: PM-14-2305   SRS 848 Cerium Oxid

ZOX N Zirconium Oxide
ZOX N is an aqueous zirconium oxide slurry used in precision polishing of soft crystals, IR filters, camera lenses and final polishing on BK-7 products.

pH-value:	5.5 to 6.5
Particle size:	1.0 to 1.35 µm
Delivery units:	20 kg Containers
Used for soft glass, IR-Filters, BK7	
Final Polishing and Pitch Polishing	

Art. No.: PM-14-2306   Zox N

Polishing Powder

Smart Solutions for Professionals

Polishing Powder

Ultra Sol

Ultra-Sol 200A is an acidic colloidal alumina dispersion, with advanced chemical-mechanical action, that provides superior surface finishes. Ultra-Sol 200A is for use with: germanium, silicon, gallium arsenide, zinc sulfide, zinc selenide, fluorides, ferrites and silicon carbide.

Technical Data:
pH:	3.5 to 4.0
% Solids:	20%
Particle size:	1.0 µm
Viscosity:	Thixotropic

Art. No.: PM-14-2302

Ultra Sol 500S is a non-drying form of colloidal silica especially designed to provide a final step polishing for most optical crystals.

Art. No.: PM-14-2303

Compol-80

Ingredients: 40% Silicone dioxide; 60% Water

Technical Data:
Colour:	milky white
pH:	9.5 to 11
% Solids:	20%
Particle size:	75nm
Viscosity:	3.0mPa x s

Art. No.: PM-78-2301

Hastilite Cerium Oxide

Hastilite Cerium Oxide Slurry:
High quality polishing slurry. The base material is a rare earth oxide which has been precipitated out of a chemical solution and calcined at optimum temperature to yield a optimized particle morphology. The solution is further enhanced with other chemicals. Final processing and sizing procedures procure a narrow sub micron particle size distribution.

Hastilite PO produces sleek free surfaces with qualities of Angstrom levels.

Technical Data:
Colour:	white
pH:	7-8 (5% Slurry)
% Solids:	30%

Distributed in 5 kg pots of concentrated slurry

Art. No.: PM-14-2201

UV Glue

Vitralit 6127 is a solvent-free, crystal clear single-component UV-cement based on Aethoxyaethylacrylat and B-Hydroxymethylmethacry-lat for cementing precision optics on metal frames.

Technical Data:

Viscosity	20 to 100
Temperature Resistancy	-40 to 120°C
Refractivity	1.501
Shore D	70 to 80

Art. No.: 10040400061040

Dura Hold is a solvent-free, ultraviolet glue specifically for use in precision optics manufacturing. The product provides structural integrity during the generating, grinding and polishing operations, and can be removed easily after soaking in a heated, aqueous deblocking solution.

Technical Data:

Viscosity	40.000cP
Flash Point	max. 150°C
Shore	60
Brookfield	1.15

Art. No.: KK-34-3301

Technicoll 8266/8267

Two component glue based on epoxy resin. Technicoll gives a very strong compound which is particularly suitable for gluing diamond pellets on curve tools. The glue hardens faster if heat is applied.

Packing: Tubes a 60g/70g

Art. No.: KK-25-0001

Pattex

This special adhesive based on polychloropren is suitable to glue all kind of polishing foils like polyurethane, desmopan, desmoflex or polishing felt on tools in ophthalmic or precision optics.
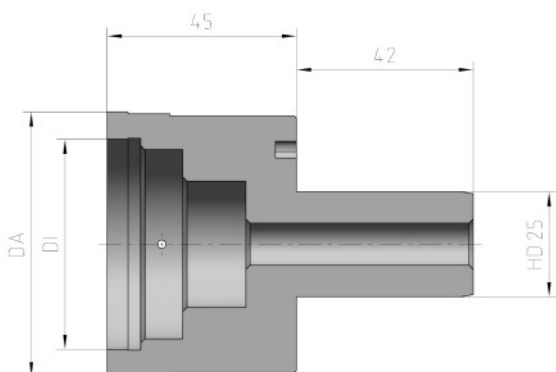
Please follow the instructions for using Pattex which is supplied with each pack.

Delivery unit 125g tubes

Art. No.: KK-43-0001

Contact Glue

Smart Solutions for Professionals

Precision Runners

We offer several high-quality precision runners for aspheres in different inside and outside diameter configurations with HD25 connection.

Article Number	Outside Diameter (DA)	Inside Diameter (DI)	Connection
Art. No.: 790-35-002	Ø2mm	Ø1mm	HD25
Art. No.: 790-35-005	Ø5mm	Ø3mm	HD25
Art. No.: 790-35-008	Ø8mm	Ø5mm	HD25
Art. No.: 790-35-009	Ø9mm	Ø5.5mm	HD25
Art. No.: 790-35-010.1	Ø10mm	Ø6.3mm	HD25
Art. No.: 790-35-012	Ø12mm	Ø7.1mm	HD25
Art. No.: 790-35-014	Ø14mm	Ø8mm	HD25
Art. No.: 790-35-015	Ø15mm	Ø9mm	HD25
Art. No.: 790-35-016	Ø16mm	Ø10.5mm	HD25
Art. No.: 790-35-018	Ø18mm	Ø12.5mm	HD25
Art. No.: 790-35-020	Ø20mm	Ø13mm	HD25
Art. No.: 790-35-025	Ø25mm	Ø18mm	HD25
Art. No.: 790-35-028	Ø28mm	Ø20mm	HD25
Art. No.: 790-35-032	Ø32mm	Ø25mm	HD25
Art. No.: 790-35-036	Ø36mm	Ø28mm	HD25
Art. No.: 790-35-040	Ø40mm	Ø32mm	HD25
Art. No.: 790-35-045	Ø45mm	Ø36mm	HD25
Art. No.: 790-35-050	Ø50mm	Ø40mm	HD25
Art. No.: 790-35-051	Ø50mm	Ø43mm	HD25
Art. No.: 790-35-056	Ø56mm	Ø45mm	HD25
Art. No.: 790-35-063	Ø63mm	Ø50mm	HD25
Art. No.: 790-35-071	Ø71mm	Ø63mm	HD25
Art. No.: 790-35-080	Ø80mm	Ø71mm	HD25
Art. No.: 790-35-090	Ø90mm	Ø80mm	HD25
Art. No.: 790-35-100	Ø100mm	Ø90mm	HD25
Art. No.: 790-35-110	Ø110mm	Ø100mm	HD25
Art. No.: 790-35-125	Ø125mm	Ø110mm	HD25
Art. No.: 790-35-140	Ø140mm	Ø125mm	HD25

Magnifier

A very solid magnifier with 6-, 8-, 12-, or 20-fold magnifying power.

Art. No.: GE-15-0002   *6x*
Art. No.: GE-15-0003   *8x*
Art. No.: GE-15-0004   *12x*
Art. No.: GE-15-0005   *20x*

Measuring Magnifier

A very solid magnifier with 6, 8 or 10-fold magnification made of metal.

Metric comparison increments 0.1 mm, Linear scale 0 to 10 mm or 0 to 20 mm

Art. No.: 910-40-0114   *6x*
Art. No.: 910-40-0113   *8x*
*Art. No.: 910-40-0115*   *10x*

Center Tickness Measuring Unit

Center Thickness Measuring Unit for lenses up to diameter 200 mm
Measuring gauge with 0.01mm scale
Max. measuring stroke 30mm
Measuring gauge height setting by a precision gear rack
Exchangeable lens holders

Art. No.: 605-80-0002

Measuring Equipment

Smart Solutions for Professionals

Test- and Blocking Station LC
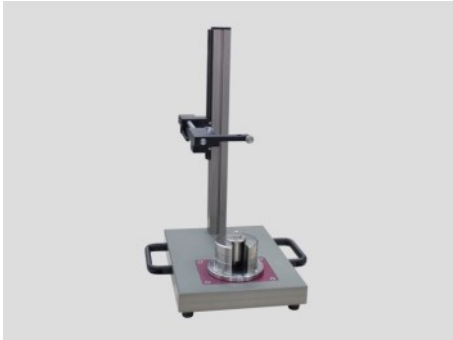
Art.No.: 540-90-0050   **Basic Unit**

Combination of a height measurement system and a blocking station. Various modules available on option, so the station can be used for measuring the thickness (e.g. lenses or tools) or for blocking of lenses on precision runners.

The basic unit consists of:

1. Hard coated aluminium plate with transport handles
2. High precision, manual Z-drive with measuring arm for analogue gauge (included) for C/T measurement

max. travel Z-Axis:	220 mm
Travel measuring gauge:	100 mm
Scale resolution measuring gauge:	0.001 mm
Dimensions (WxDxH):	360 x 350 x 700 mm

Modules available on option:

Art.No.: 540-90-0053   **Module for thickness measurement HD 40**

Art.No.: 540-90-0056   **Module for measuring KombiTools HD 25**

Art.No.: 540-90-0057   **Module for thickness measurement HD 25**

Art.No.: 540-90-0054   **Module for centering and cementing**

Different chucks available on option:

Art.No.: 540-90-0051   **HD 40 Chucks**

Art.No.: 540-90-0052   **HD 25 Chucks**

Art.No.: 540-90-0055   **HD 12 Chucks**

Blocking Unit LC

Art.No.: 540-90-0016   Basic Unit

For high precision blocking of lenses in asphere production and lens production with integrated edging.

Including stand and Millimess measuring gauge.

Range of application:
- Serial cementing (with V-edge) up to Ø 200 mm
- Single cementing up to Ø 250 mm

Working principle: The lens will be layed down on the holder, adjusted according to the measuring gauge. In the next step the lens holder will be heated and blocked by a seperate heating source.

V-Edges on option:

Art.No.: 540-12-044   10 mm < Ø < 60 mm
Art.No.: 540-12-045   60 mm < Ø < 130 mm
Art.No.: 540-12-046   130 mm < Ø < 200 mm

Centering spindles on option:
Art.No.: 540-45-0007   Centering Spindle with HD 40
Art.No.: 540-45-0009   Centering Spindle with HD 25
Art.No.: 540-45-0011   Centering Spindle with HD 12

Measuring Equipment

Smart Solutions for Professionals

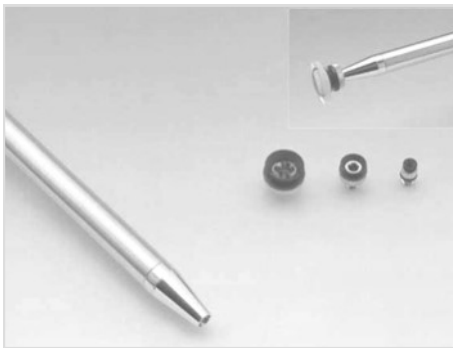Measuring Equipment
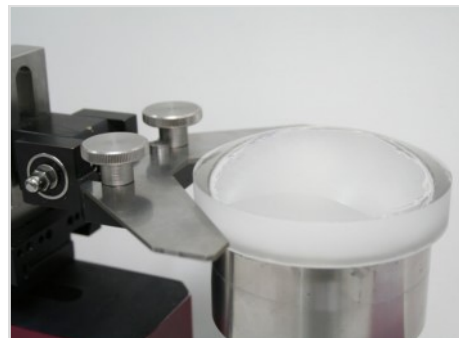
Spherometer Rings

Measuring instrument for precision optics operation as well as the operation scheduling.
The spherometer rings are available in diameters 1 to 100 mm.

Other diameters on request.

Measuring gauge and measuring pins separately available.

Vacuum Pencil

Vacuum pencil for easy handling of small lenses (micro optics)

Includes 3 different vacuum cup sizes:
Vacuum cup Ø 6 mm for lenses Ø 5-10 mm
Vacuum cup Ø 10 mm for lenses Ø 10-20 mm
Vacuum cup Ø 14 mm for lenses Ø 20-45 mm

Art. Nr.: GE-15-0017

Cleaning Cloth

Soft and lint-free cotton clothes for cleaning very sensitive surfaces. The clothes are free from silicone and washable by 90 °C in usual washing machines.

Art. No.: RM-21-3301   lemon
100% Cotton, low silicone
Size: 50 cm x 50 cm

Art. No.: RM-83-3301   white
TX 609
Size: 23 cm x 23 cm
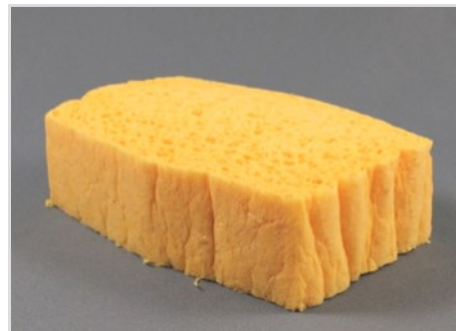
Art. No.: RM-83-3302   white
TX 409
Size: 23 cm x 23 cm

Sponges

Highly absorbent and durable viscose sponge

Free from silicone

Art. No.: RM-35-0001

Cleaning Equipment

Smart Solutions for Professionals

Hand Cleaner RM OI

OptoTech Cleaner and Preservative for final cleaning of coated lenses and prisms. Immediate end assembly is possible. The optical surfaces acquire an absolutely smooth and preserved surface.

Art. No.: RM-17-0201

Protective Paint
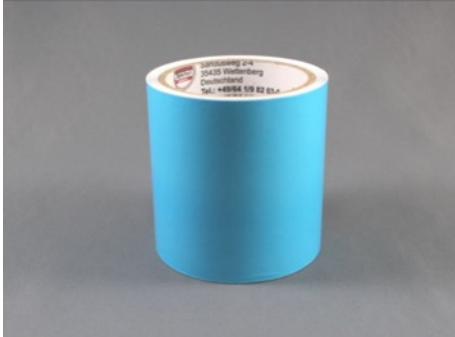

Protective Paint using ethyl alcohol as solvent

Appilcation: To protect polished surfaces against mechanical attacks

Colour: Black

Delivery Units: 1 kg or 5 kg

Art. No.: SC-36-0001

Cleaning Equipment

Lens Protection Tape

Tape for protecting lenses during the processing cycle. Excellent cohesion and easy removal.

Colour: Blue

Saver tape	Work piece	Dimensions (L x H)	Art.No.:
Optosave blue PLUS 35	Mineral+ Plastic	35 m x 0.1 m	SC-82-3301
Optosave blue PLUS 70	Mineral+ Plastic	70 m x 0.1 m	SC-82-3302
Optosave blue PLUS 105	Mineral+ Plastic	105 m x 0.1 m	SC-82-3304
Optosave blue PLUS 210	Mineral+ Plastic	210 m x 0.1 m	SC-82-3303

Tooling: Diamond Needles

Smart Solutions for Professionals

Diamond Pellets

Sintered diamond pellets for lapping and fine-grinding of optical lenses in precision optics and ophthalmics.

Diameter 4 mm to 16 mm
Thickness 2 mm to 5 mm

Other dimensions available on request.

All diamond pellets are also available in different bond and grit sizes. We supply C 23 as standard concentration. Other concentrations available on request.
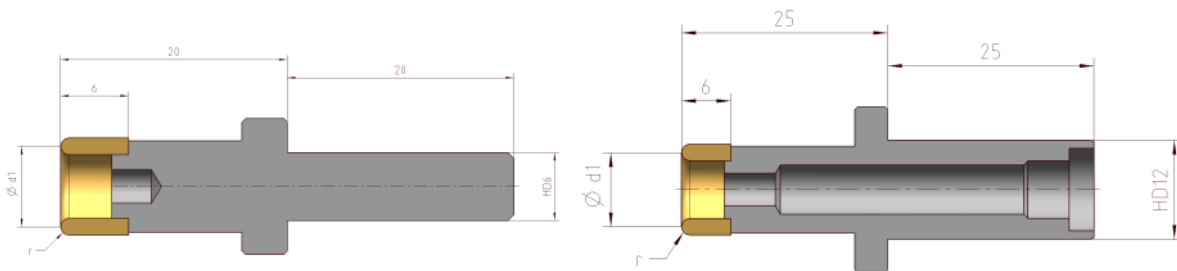
Comment

All required pellets for precision optics as well as ophthalmic optics are usually available ex stock. Furthermore we stock the appropriate adhesives and compound glues for the pellets.

Diamond pellets

Diameter in mm	Thickness in mm	Concentration	Grit Size	Bond
4	2/3	C23 / C35	D7 - D20 (others on request)	metal / resin
6	2/3			
8	2/3			
10	2/5			
12	5			
16	5			

Diamond Cup Wheels HD6 & HD12

Sintered diamond cup wheels DIN 58741 for fine-grinding optical surfaces in precision optics.

Tooling: Diamond Cup Wheels

HD 6		HD 12	
d1	**r**	**d1**	**r**
Ø 3,0	0,5	Ø 3,0	0,5
Ø 4,0		Ø 4,0	
Ø 5,0	0,75	Ø 5,0	0,75
Ø 5,6		Ø 5,6	
Ø 6,3		Ø 5,6	
Ø 7,1		Ø 6,3	
Ø 8,0		Ø 7,1	
Ø 9,0	1	Ø 8,0	
Ø 10,0		Ø 9,0	1
Ø 11,0		Ø 10,0	
Ø 12,5		Ø 11,0	
Ø 14,0	1,25	Ø 12,5	
Ø 16,0		Ø 14,0	1,25
Ø 18,0		Ø 16,0	
Ø 20,0		Ø 18,0	
Ø 22,0	1,5	Ø 20,0	
Ø 25,0		Ø 22,0	1,5
Ø 28,0		Ø 25,0	
Grit size and concentration on request.		Ø 28,0	
		Ø 32,0	

Grit size and concentration on request.

Smart Solutions for Professionals

Diamond Cup Wheels HD25

Sintered diamond cup wheels DIN 58741 for fine-grinding optical surfaces in precision optics.
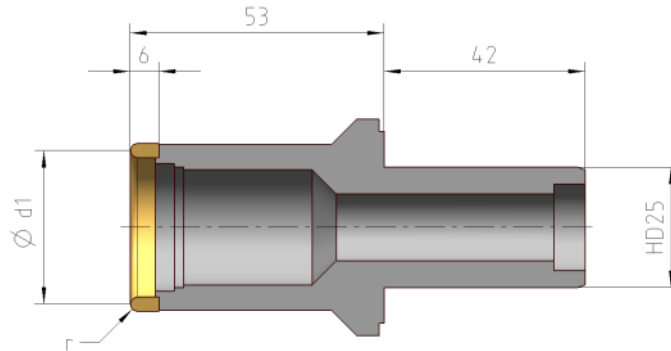
HD 25			
d1	**r**	**d1**	**r**
Ø 6.3	0.75	Ø 45.0	1.50
Ø 8.0	0.75	Ø 50.0	2.00
Ø 10.0	1.00	Ø 56.0	2.00
Ø 12.5	1.00	Ø 63.0	2.00
Ø 16.0	1.25	Ø 71.0	2.00
Ø 20.0	1.25	Ø 80.0	2.00
Ø 22.0	1.50	Ø 90.0	2.00
Ø 25.0	1.50	Ø 100.0	2.50
Ø 28.0	1.50	Ø 110.0	2.50
Ø 32.0	1.50	Ø 125.0	2.50
Ø 36.0	1.50	Ø 140.0	2.50
Ø 40.0	1.50	Ø 150.0	2.50

Grit size and concentration on request.

Diamond Cup Wheels HD40

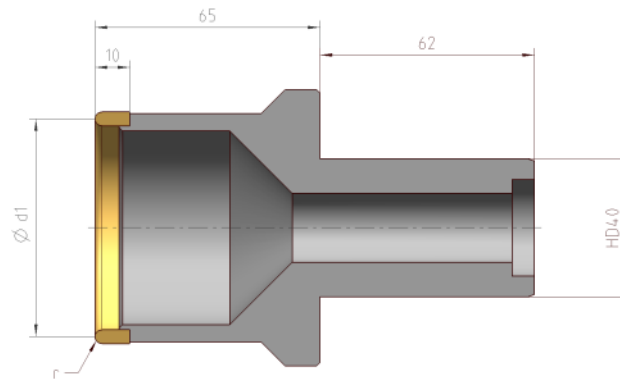Sintered diamond cup wheels DIN 58741 for fine-grinding optical surfaces in precision optics.

HD 40			
d1	r	d1	r
Ø 56,0	1,0	Ø 140,0	2,0
Ø 63,0	1,0	Ø 150,0	2,0
Ø 71,0	1,0	Ø 160,0	2,0
Ø 80,0	1,25	Ø 180,0	2,0
Ø 90,0	1,25	Ø 200,0	2,0
Ø 100,0	1,25	Ø 225,0	2,0
Ø 110,0	1,25	Ø 250,0	2,0
Ø 125,0	2,0		

Grit size and concentration on request.

Tooling: Diamond Cup Wheels

Smart Solutions for Professionals

OptoTech

Diamond Wheels

D	d	h	R	T
20	6	6	10	6
30	7	8	15	8
40	15	8	20	15
50	15	8	25	15
80	25	12	40	25
100	25	12	50	25
120	25	12	60	25

Straightening Stones

Art. No.	Dimensions	Incl. HD Interface	Roughness
061-90-0079	Ø45x50	HD25	Fine
061-90-0080	Ø45x50	HD25	Rough
042-90-0007	Ø50x50 (tall version)	HD25	Rough
061-90-261	Ø45x50x10 (with hole)	-	Fine
061-90-296	Ø52x50 (without hole)	-	Rough

Diamond Cup Wheels HD12 Electroplated
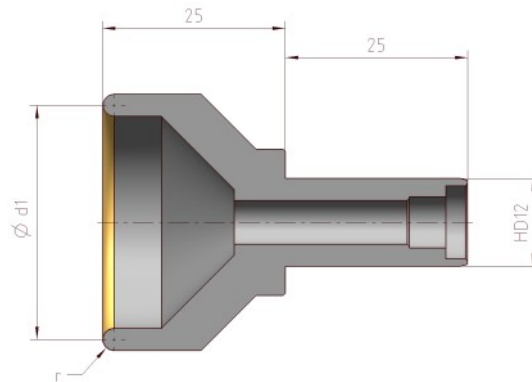
HD12

d1	r	d1	r
Ø 5.0		Ø 14.0	
Ø 5.6		Ø 16.0	1.25
Ø 6.3		Ø 18.0	
Ø 7.1		Ø 20.0	
Ø 8.0	1.00	Ø 22.0	
Ø 9.0		Ø 25.0	
Ø 10.0		Ø 28.0	1.50
Ø 11.0		Ø 32.0	
Ø 12.5		Ø 36.0	
		Ø 40.0	

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Tooling: Diamond Cup Wheels Electroplated

Diamond Cup Wheels HD25 / HD40 Electroplated
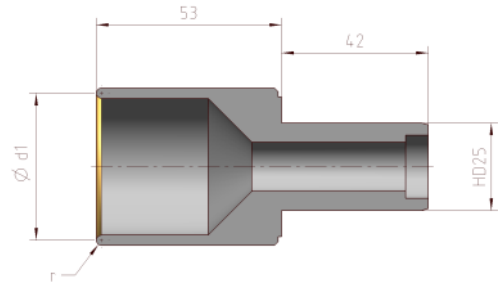
HD25

d1	r	d1	r
Ø 8.0		Ø 36.0	1.50
Ø 9.0		Ø 40.0	
Ø 10.0	1.00	Ø 45.0	2.00
Ø 11.0		Ø 50.0	
Ø 12.0		Ø 56.0	
Ø 14.0		Ø 63.0	
Ø 16.0	1.25	Ø 71.0	
Ø 18.0		Ø 80.0	
Ø 20.0		Ø 90.0	3.00
Ø 22.0		Ø 100.0	
Ø 25.0	1.50	Ø 110.0	
Ø 28.0		Ø 125.0	
Ø 32.0			
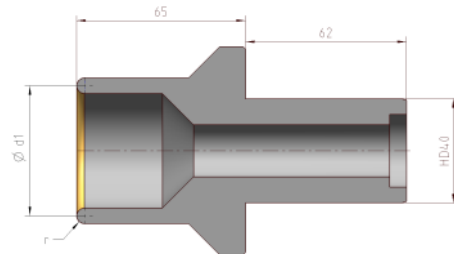
HD40

d1	r	d1	r
Ø 80		Ø 160	
Ø 90		Ø 180	
Ø 100	3.0	Ø 200	5.0
Ø 110		Ø 225	
Ø 125		Ø 250	
Ø 140		Ø 280	
		Ø 300	

Tooling: Diamond Cup Wheels Electroplated

KombiTools

D1	R1	M1	D2	R2	M2
mm	mm	mm	mm	mm	mm
7.1			11		
8			12.5		
9			14		
11	0.75	M5	16	0.75	M24x1
12.5			18		
14			20		
16		M10	22		

D1	R1	M1	D2	R2	M2
mm	mm	mm	mm	mm	mm
18			25		
20			25		
22	0.75	M10	28	0.75	M38x1
25			32		
28			32		

D1	R1	M1	D2	R2	M1
mm	mm	mm	mm	mm	mm
32			36		
36			40		
40	0.75	M16	45	0.75	M60x1
45			50		
50			56		

Tooling: KombiTools

Smart Solutions for Professionals

Centering Wheels

d_1	d_2	d_3	h	*Machine Type*
100	40	20	10	ZM 50 / ZM 25 WZM 20
120	40	20	10	
120	50	30	25	ZM 200 / WZM 150
160	50	30	25	
180	50	30	25	
200	50	30	25	

Others diameters, grid sizes and concentrations on request

Centering Bells
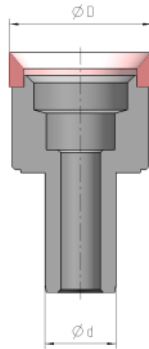
D	d	D	d	D	d
2.0	HD12	16.0	HD12 / HD25	65	HD12 / HD25
2.2	HD12	18.0	HD12 / HD25	67.5	HD25
2.4	HD12	20.0	HD12 / HD25	70	HD12 / HD25
2.6	HD12	22.5	HD12 / HD25	75	HD12 / HD25
2.8	HD12	25.0	HD12 / HD25	80	HD12 / HD25
3.0	HD12	26.5	HD12	85	HD25
3.2	HD12	27.5	HD25	90	HD25
3.4	HD12	28.0	HD12	95	HD25
3.6	HD12	30.0	HD12 / HD25	100	HD25
3.8	HD12	32.5	HD25	105	HD25
4.0	HD12	33.5	HD12	110	HD25
4.5	HD12	32.5	HD25	115	HD25
5.0	HD12	35.5	HD12	120	HD25
5.6	HD12	37.5	HD12 / HD25	125	HD25
6.3	HD12	40.0	HD12 / HD25	130	HD25
7.1	HD12	42.5	HD12 / HD25	140	HD25
8.0	HD12	45.0	HD12 / HD25	150	HD25
9.0	HD12 / HD25	47.5	HD12 / HD25	160	HD25
10.0	HD12 / HD25	50	HD12 / HD25	180	HD25
11.2	HD12 / HD25	52.5	HD12 / HD25	200	HD25
12.5	HD12 / HD25	55	HD12 / HD25	225	HD25
13.2	HD12	57.5	HD12 / HD25	250	HD25
14.0	HD12 / HD25	60	HD12 / HD25		
15.0	HD12	62.5	HD25		

Tooling: Centering Bells

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Rubber Membranes

Rubber membrane for holding optical lenses during the working process. All membranes are manufactured by OptoTech with a very high quality standard. Hereinafter you will see an overview of the available versions and dimensions. Furthermore you can also get customized membranes.

Versions:

		Type No.	Ø DL	Area of Application
		801	10 mm – 340 mm	Flat bearing surfaces / Stable geometries
		804	12 mm – 120 mm	Concave surfaces / For small lenses
		808	17 mm – 110 mm	Concave surfaces / For small lenses
		810	17 mm – 55 mm	Concave surfaces / For small lenses
		811	12 mm – 110 mm	Universal / Radii fitting to lens radii / Edge pressure
		813	12 mm – 100 mm	For small lenses
		814	10 mm – 200 mm	For CX lenses
		815	14 mm – 160 mm	For CC lenses

Others on request

Tooling: Rubber Membranes

Basic Chucks for Rubber Membranes

Overview basic chuck

type	chuck connection	DIN
708-21-xxx	M10	58725
708-32-xxx	M16	58725
708-33-xxx	M27	58725
708-34-xxx	HD12	58725
708-35-xxx	HD25	58725
708-36-xxx	HD40	58725

xxx = Membrane diameter
Adaptor M → HD available
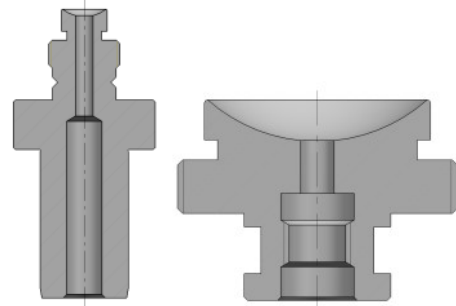
Polishing Membranes

Art. No.	Diameter	Radius
12970161003500	Ø 16 mm	R10
12970342003500	Ø 34 mm	R20
12970524003500	Ø 52 mm	R40
12971008003500	Ø 100 mm	R80

FEM Tool Kits

Art. No.	Tool Diameter	Connection
185-90-1000	Ø 16 mm	HD25
185-90-1001	Ø 34 mm	HD25
185-90-1002	Ø 52 mm	HD25
185-90-1003	Ø 100 mm	HD25

1 Tool kit contains: 1 FEM-Flex Tool incl. spare membranes, 1 Dressing Tool for FEM-Flex Tools

Tooling: Basic Chucks, Polishing Membranes & FEM Tool Kits

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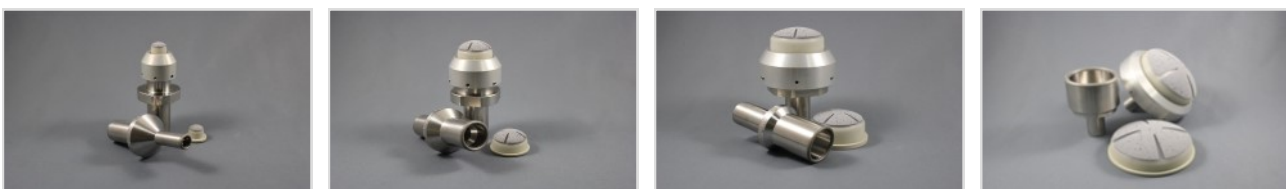
A-FJP Tool Kits

Art. No.	Tool Diameter	Connection
185-90-1004	Ø 4 mm	HD25
185-90-1005	Ø 6 mm	HD25
185-90-1006	Ø 10 mm	HD25

1 Tool kit contains: 2 A-FJP nozzles, 1 base body, set of polishing pins
***NOTE:** To use these tools, the polishing machine has to be equipped with a C-axis*

A-FJP Polishing Pins

Art. No.	Tool Diameter
197-90-0032	Ø 4 mm
197-90-0026	Ø 6 mm
197-90-0027	Ø 10 mm

1 Tool kit contains: 20 polishing pins in storage box

Tooling: A-FJP Tool Kits & Polishing Pins

A-WPT Tool Kits

Art. No.	Description
198-90-0006	*Advanced wheel polishing tool version 2 Ø50 (A-WPT)*
198-90-0008	*Advanced wheel polishing tool version 2 Ø70 (A-WPT)*

NOTE: *To use these tools, the polishing machine has to be equipped with a C-axis. Additionally, for each machine type, a special adapter kit is needed. Prices available on request.*

Wheel Polishing Tools
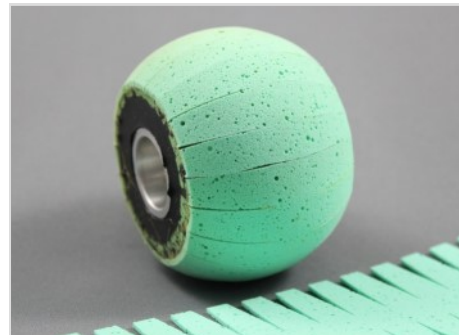
Art. No.	Description	Technology
195-90-0005	*Polishing Wheel Ø70x50*	Wheel Polishing Technology (WPT)
FZ-046-127-003	*Polishing Foil*	Wheel Polishing Technology (WPT)
198-90-040	*Polishing Wheel Ø50x15*	Advanced Wheel Polishing Technology (A-WPT)
FZ-046-127-004	*Polishing Foil*	Advanced Wheel Polishing Technology (A-WPT)
198-90-063	*Polishing Wheel Ø70x25*	Advanced Wheel Polishing Technology (A-WPT)
FZ-046-127-006	*Polishing Foil*	Advanced Wheel Polishing Technology (A-WPT)

Tooling: A-WPT Tool Kits & Wheel Polishing Tools

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Tool Kit Excenter Ball Pin

Art. No.	Description
185-90-1011	Tool kit "excenter ball pin"

Pitch Polishing Tools

Art. No.	Description
197-90-107	Pitch polishing tool Ø10mm R=plano for ball pin
197-90-104	Pitch polishing tool Ø20mm R=plano for ball pin
197-90-105	Pitch polishing tool Ø30mm R=plano for ball pin
197-90-106	Pitch polishing tool Ø40mm R=plano for ball pin

NOTE: *Without lock plate and pitch*

Lens Specific Tools

Being a system supplier, OptoTech provides the opportunity to produce lens specific tools for your individual tasks. Just ask us. We would be very glad to send you a specific proposal for all necessary tools, based on your lens drawing.

Whether polishing tools, collets, bodies or lens holders, OptoTech will deliver the ideal solution for your lenses.

Bodies

Lens Holders

Polishing Tools

Collets

Tooling: Lens Specific Tools

Smart Solutions for Professionals

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