







for the processing of optical components



Company history

Mr. Klaus Schott was the grandson of the well-known Dr. Otto Schott. Already as a young boy, Klaus Schott had relations to the glass industry because of his family. His father, his brothers and he himself were all employed by the internationally known company of Schott Glaswerke AG. It was during this period that he acquired fundamental knowledge and qualifications in the field of glass processing.

• 1975

In 1975, Klaus Schott founded his own independent enterprise in the town of Stadtoldendorf and supplied the glass industry with diamond tools. Beside the trade with the above mentioned tools, he also manufactured his own products in order to supply his nationwide customers in the glass industry with tools for their requirements.

• 2000

In the year 2000, Mr Burghard Lein, a member of staff of many years standing, became the second shareholder and director of the enterprise. After this, the sole proprietorship enterprise was converted to a limited liability company with its domicile in Stadtoldendorf, it is now called SCHOTT Diamantwerkzeuge GmbH.

• 2005

In 2005, Mr Burghard Lein took over the company as the sole shareholder and managing director after the sudden and tragic death of the company founder Klaus Schott.

• 2007

In 2007, because of the increasing demand for our products, the company was moved to two large production facilities in the neighbourhood within the township of Stadtoldendorf. This enabled us to manufacture tools in series production on a limited scale in addition to the single manufacture of electro-plated and sintered diamond tools.

• 2008

In 2008, a third large building in the neighbourhood was acquired to become an additional production site. In the meantime, the area of the production site and the number of staff had more than doubled. The company of SCHOTT Diamantwerkzeuge manufactures top quality tools, usually according to the specifications of our customers.

These are for the processing of glass, ceramics, stone, metals and plastic, but also for the optical industry. This means that we usually don't offer pre-manufactured products but tools manufactured according to the specifications and the demand of our customers, dependent on the

- kind of the materials to be processed
- machines employed for the processing
- kind and consistence of the coolants employed
- manufacture targets

For these employments, we manufacture diamond tools which are made to measure. They feature the best possible quality and also have a very good price-performance ratio.

• 2009

In spite of the global economic crisis, the company of SCHOTT Diamantwerkzeuge managed to follow its successful course of growth. New sales areas were established and supplied with our products. These countries include Italy, Switzerland, France, Belgium, The Netherlands, Israel, China, India, Japan and the USA.

2010 until today

We run a number of research projects in close cooperation with technical high schools and universities. The aim of these projects is the permanent increase and improvement of processing methods with our tools, mainly in the field of new materials and compound materials and also the application of ultrasonic for dental and medical technology. In these areas, new findings are of utmost importance.

• 2012-2017

In the meantime, the third company building had been fully equipped. The application technologies are permanently updated and extended. Also, the first tool shop systems have been installed, their operations fully satisfy its users.

• 2018/2019

In 2018, we extended our sales network to the south of Germany and Austria. Patents were applied for and granted. In the field of ultrasonic-suitable diamond tools the manufacture was extended, and a new range of products was developed. The production line for the manufacture of resin-bonded materials was extended.

TÜV certificate

Certificate

Standard ISO 9001:2015

Certificate Registr. No. 01 100 045259

Certificate Holder: Schott Diamantwerkzeuge GmbH

Yorck-Str. 6 37627 Stadtoldendorf

Germany



Scope: Development, production and sales of diamond coated tools

Proof has been furnished by means of an audit that the requirements of ISO 9001:2015 are met.

Validity: The certificate is valid from 2019-08-19 until 2022-08-18.

First certification 2004

2019-08-16

TÜV Rheinland Cert GmbH Am Grauen Stein · 51105 Köln





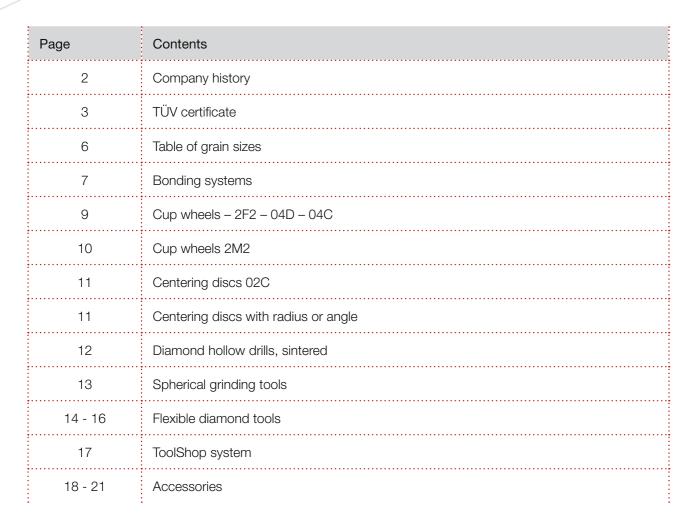




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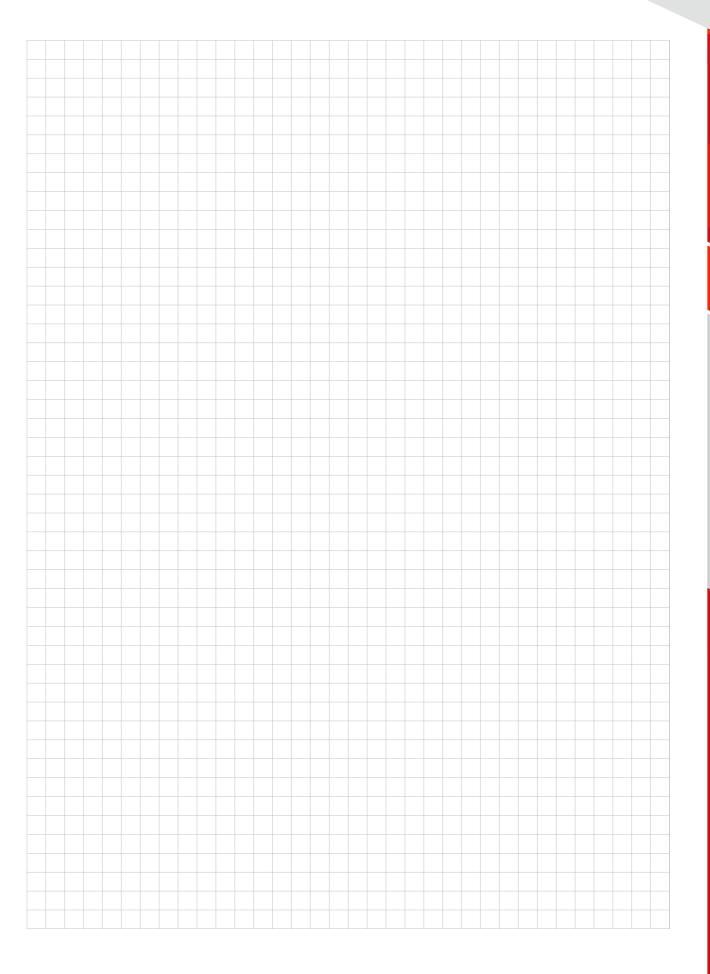


Table of grain sizes

Bonding systems

:	:	
FEPA-Code	Mesh-Code	μm
D3		2 - 4
D5		4 - 6
D7		6 - 8
D9		8 - 10
D10		8 - 12
D12		8 - 16
D15		10 - 20
D20		15 - 25
D25		20 - 30
D30		20 - 40
D35		30 - 40
D46	325 / 400	
D54	270 / 325	
D64	230 / 270	
D76	200 / 230	

FEPA-Code	Mesh-Code	μm
D91	170 / 200	
D107	140 / 170	
D126	120 / 140	
D151	100 / 120	
D181	80 / 100	
D213	70 / 80	
D251	60 / 70	
D301	50 / 60	
D356	45 / 50	
D426	40 / 45	
D501	35 / 40	
D601	30 / 35	
D711	25 / 30	
D851	20 / 25	
D1001	18 / 20	
D1181	16 / 18	

N – grain is suitable	• for easy cutting (glass, carbon, ceramics)	
S – grain is suitable	for grinding and drilling of glass and ceramics	
H – grain is suitable	 for profile grinding of hard ceramics for highly strained drill bits and routers and also ultrasonic-supported tools 	

Bonding	Grain	Application			
Resin bonding					
	Diamond CBN	Tool grinding			
	Diamond	Glass processing / Optics			
Metal bonding, sintered					
Bronze / iron alloys	Diamond CBN	Glass processing			
Bronze	Diamond	Optics manufacture			
Galvanic Bonding					
Single-coated	Diamond & CBN	Profile grinding wheels			
Multiple coating	Diamond & CBN	Ceramics processing			
Electroplated interspersed	Diamond & CBN	Ceramics processing			

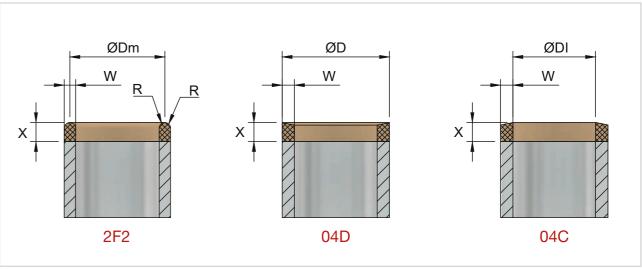




Diamond tools for the processing of optical components

Cup wheels





Cup wheels 2F2					
Ø Dm in mm W in mm X in mm R in mm				R in mm	
Connection / shaft	Diameter	Wall thickness	Crown depth	Radius	
Clamping shaft (g6)	3 - 200	1-5	4 - 6 - 10	0,5 x W	

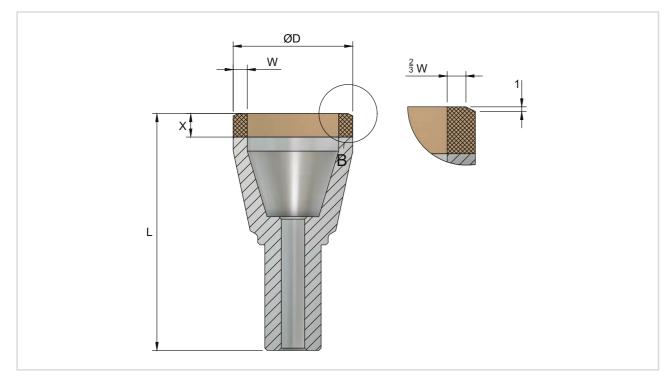
Cup wheels 04D, 04C					
	Ø D / Ø DI in mm	W in mm	X in mm		
Connection / shaft	Diameter	Wall thickness	Crown depth	Angle	
Clamping shaft (g6)	3 - 200	on request	on request	According to demand	

On request also available with HSK adapter.



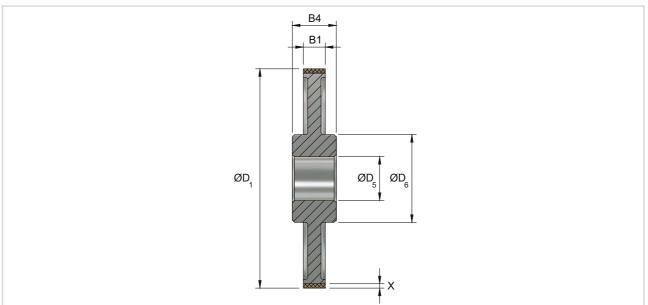
Cup wheels

Centering discs

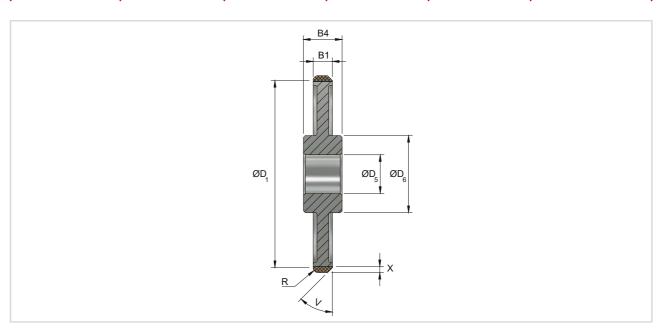


Cup wheels 2M2						
Ø D in mm W in mm X in mm						
Connection / shaft	Diameter	Wall thickness	Layer height			
Clamping shaft (g6)	3 - 200	5	4 - 6 - 10			

Further connections available on request.



Centering discs 02	С				
Ø D5 in mm	Ø D5 in mm Ø D1 in mm X in mm B1 in mm				Ø D6 in mm
Bore	Diameter	Layer height	Layer width	Total width	Carrier diameter
According to demand	80-200	According to demand	According to demand		According to demand

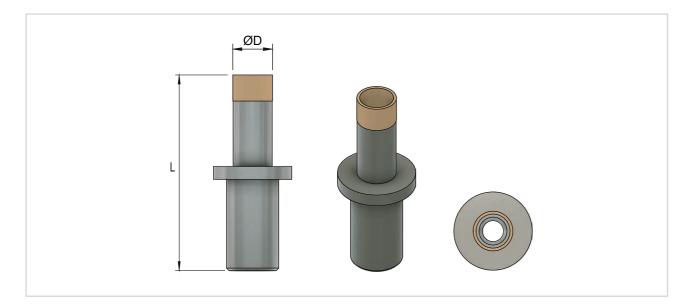


Centering discs with radius or angle							
Ø D5 in mm	Ø D1 in mm	X in mm	B1 in mm	B4 in mm	Ø D6 in mm	R in mm	V
Bore	Diameter	Layer height	Layer width	Total width	Carrier diameter	Radius	Layer angle
According to demand	80-200			According to demand			According to demand

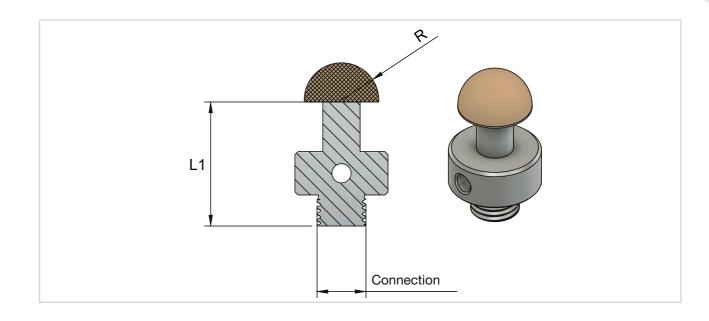


Diamond hollow drills

Spherical grinding tools

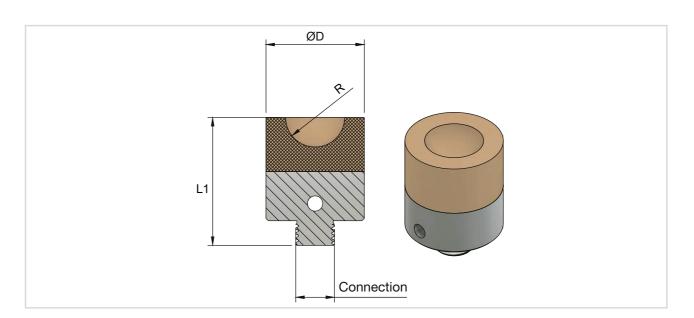


Diamond hollow drills sintered					
	Ø D in mm	L in mm			
Connection / shaft	Inside diameter	Total length	Drilling depth	Crown depth	
Clamping shaft (g6) R 1/2"	1,5 - 250	50 - 250	3 - 200	10	



For inside processing

All dimensions and connections and also grain sizes and concentration are made individually according to customer's demands



For outside processing

All dimensions and connections and also grain sizes and concentration are made individually according to customer's demands





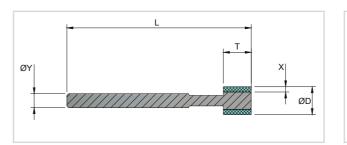
Flexible Diamond Tools

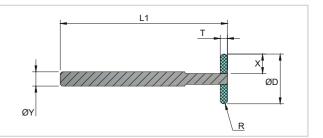
Flexible Diamond Tools











Mounted points S1A1W Mono / Poly - Elastic

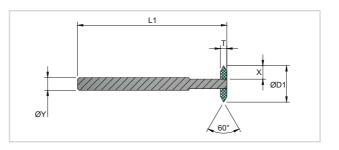
All dimensions according to demand and technical feasibility

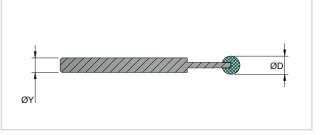
Mounted points 1F1W Mono - Elastic

All dimensions according to demand and technical feasibility









Mounted points 1V1W Mono / Poly - Elastic

All dimensions according to demand and technical feasibility

Mounted points 1K1W Mono / Poly - Elastic

All dimensions according to demand and technical feasibility – Ø D from 5 mm onward

Flexible Diamond tools are used for finest processing of hard materials

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Flexible Diamond Tools



Circumterence grinding disc	Circumference grinding discs 1A1 Mono - Elastic						
Ø H in mm	Ø D in mm	X in mm	T in mm				
Mounting hole:	Outside diameter	Wall thickness	Width				
	75		10 - 50				
On required	100	On required					
On request	150	On request					
	200						



Circumference grinding discs 1A1 Poly - Elastic						
Ø H in mm	Ø D in mm	X in mm	T in mm			
Mounting hole:	Outside diameter	Wall thickness	Width			
On request	75					
	100	On request	10 - 40			
	150	······ On request	10 - 40			
	200					
Available with and without spiral groove						

ToolShop system

For interested customers, SCHOTT Diamantwerkzeuge GmbH offers the opportunity for a simple and efficient tool management and storage by means of a so-called ToolShop system.

This system consists of a PC with a touchscreen function (incl. software for storage management), a hand scanner for the reading of the barcodes employed and also, according to demand, one or more tool cabinets.

The advantages for you:

- Simple and quick tool management
- Simple and quick tool selection
- Efficient and clearly structured tool storage
- Permanently available tools
- Low administration effort for you
- Reduced storage effort
- Low-cost administration
- simple and quickly learnable application (quickly usable for all members of staff)
- space-saving because the entire hardware and software are contained in the touchscreen device (except for the scanner)
- automated ordering system by e-Mail directly by the system (upon short fall of the fixed minimum stock)
- Short delivery times for repeat orders of fixed minimum order quatities (which we store for you buffer storage)
- Installation of the complete system by us
- System support by us or by the German system developers
- Installation and training in your premises by us



- 1 PC with touchscreen function incl. software for storage management
- 1 hand scanner for barcode or QR code reading
- 1 or more tool cabinets (according to demand)



Accessories Whetstones



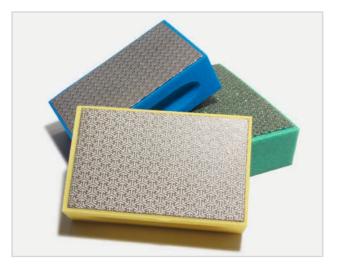




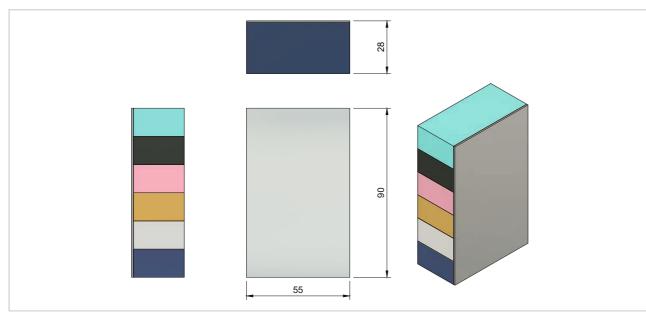
Whetstones	
Dimensions in mm	Grain size
200 x 90 x 20	On request
200 x 50 x 25	
200 x 30 x 4	
200 x 30 x 3	
90 x 70 x 20	
Further dimensions on demand	

Hand pads Flushing bushes









Hand pads		
Dimensions in mm	Colour	Grain size in mesh
90 x 55 x 28	Green	60
90 x 55 x 28	Black	120
90 x 55 x 28	Red	200
90 x 55 x 28	Yellow	400
90 x 55 x 28	White	500
90 x 55 x 28	Blue	1500

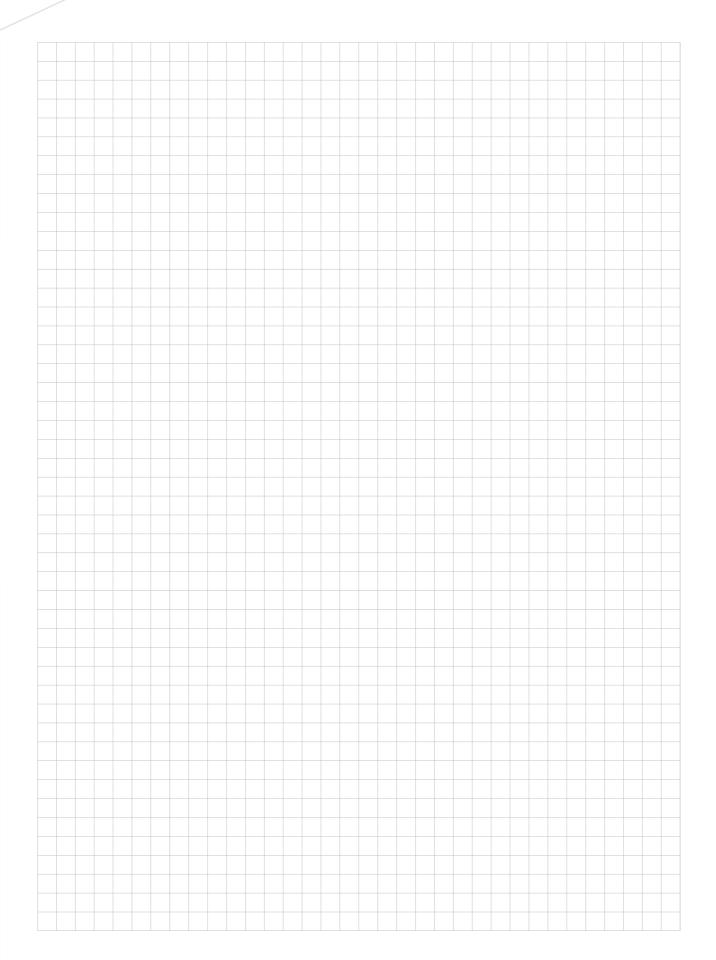


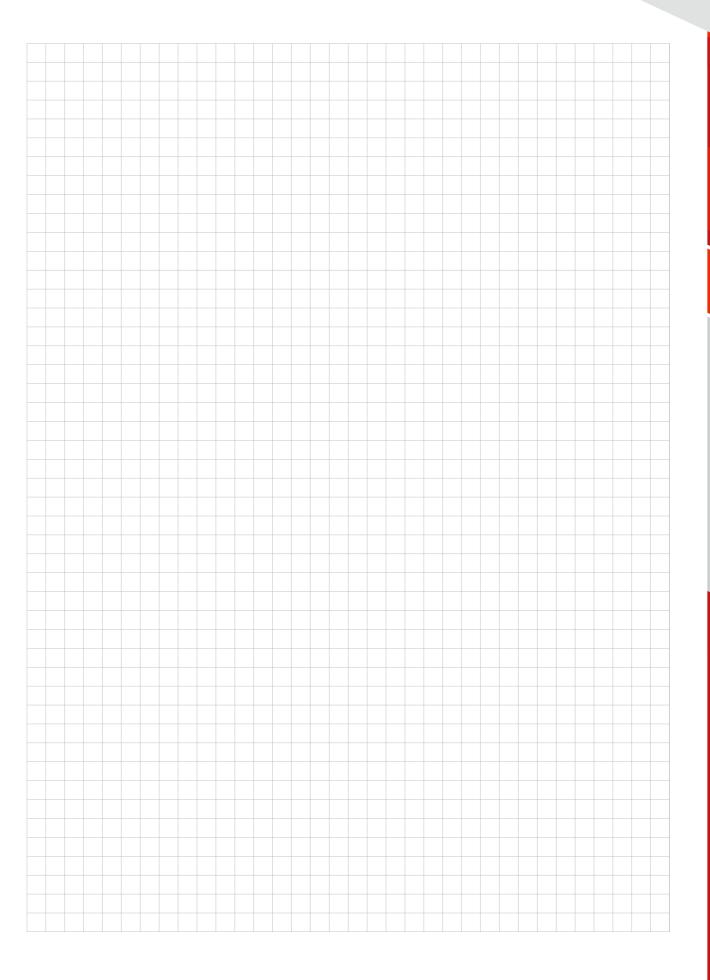
Flushing bushes for diamond drills		
Connection on the machine side	Connection on the tool side	
1/2" 20 thread IG		
SDS - Plus (1/2" 20 thread)		
^{5/8} " 16 thread IG		
M18 x 2,5 IG		
M16 x 2,0 IG	R ½" IG and on request	
M14 x 2,0 IG		
B16 (cone on the inside)		
13mm trunnion		
MK2 (cone on the outside)		

Further connections on request

Notes















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