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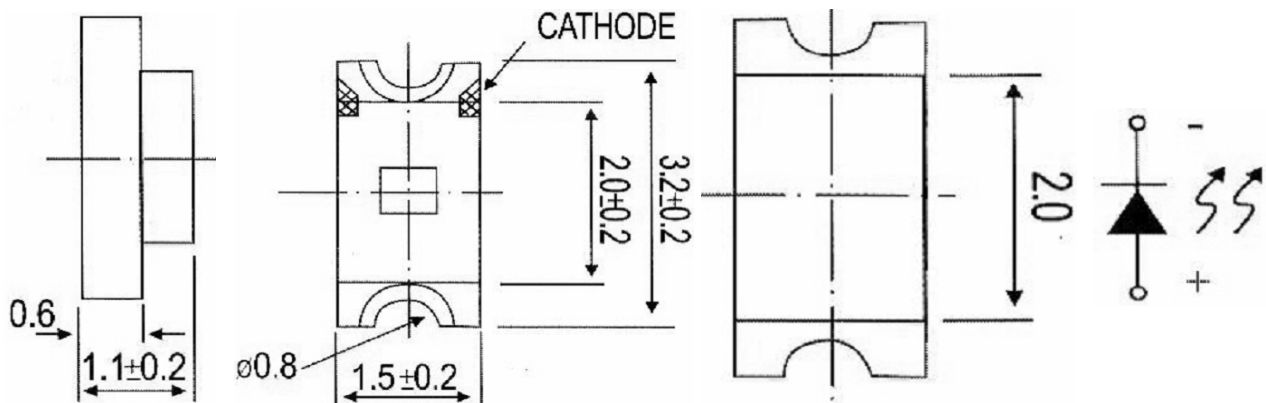## Applications

- Interior automotive lighting
- Optical indicators
- Communication Products
- Backlighting
- Toys

Technical Drawing

CATHODE

0.6

1.1±0.2

ø0.8

1.5±0.2

2.0±0.2

3.2±0.2

2.0

−

+

Recommended Soldering Pattern

Notes :

All dimensions in mm tolerance is
± 0.1mm unless otherwise noted.

Chip LED		
Green		
Part No.:	**M11G1003**	
Customer:		

DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	06.12.2009
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Absolute Maximum Ratings

Ta=25°C

Item	Symbol	GaP	Unit
Power Dissipation	P_D	---	mW
DC Forward Current	I_F	20	mA
Plused Forward Current	I_{FP}*	---	mA
Reverse Voltage	V_R	---	V
Operating Temperature	T_{OP}	---	°C
Storage Temperature	T_{ST}	-55 to 100	°C

* 0.1 msec pulse, 10% duty cycle

Electrcal / Optical Characteristics

I_F=20mA   Ta=25°C

Ermitting Color		Green	
Material		GaP	
Forward Voltage	typ.	2.1	V_F
	max.	2.4	V_F
Wavelength typ.	λD	571	nm
	λP	---	nm
	Δλ	---	nm
Color Temperature	min.	---	K
	max.	---	K
Luminous Intensity *	min.	7.5	mcd
	typ.	13	mcd
Reverse Current	max.	---	µA
Viewing Angle	2Θ1/2	130	

* Per NIST standards

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Curve
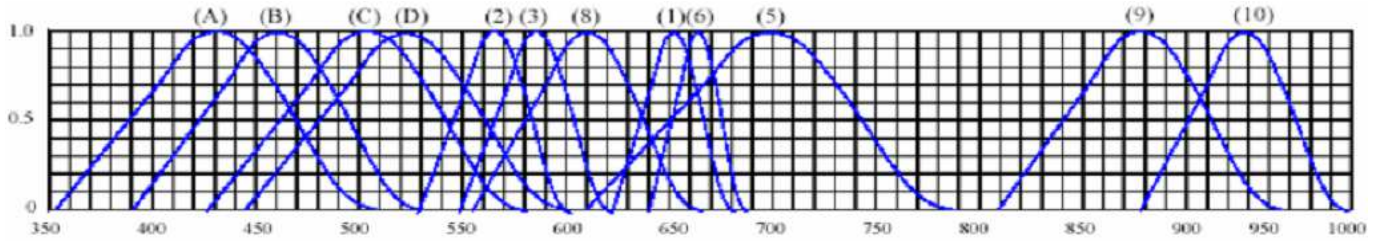
Wavelength (nm)

Relative Intensity vs Wavelength

(1)	**GaAsP / GaAs**		(9)	**GaAlAs**
	655nm Red			**880nm**
(2)	**GaP**		(10)	**GaAs & GaAlAs**
	568nm Yellow Green			**940nm**
(3)	**GaAsP / GaP**		(A)	**GaN**
	585nm Yellow			**430nm Blue**
(4)	**GaAsP / GaP**		(B)	**InGaN**
	635nm Orange & Red			**470nm Blue**
(5)	**GaP**		(C)	**InGaN**
	700nm Red			**502nm Green**
(6)	**GaAlAs / GaAs**		(D)	**InGaN**
	660nm Red			**523nm Green**
(8)	**GaAsP / GaP**			
	610nm Red			

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FORWARD CURRENT VS. FORWARD VOLTAGE
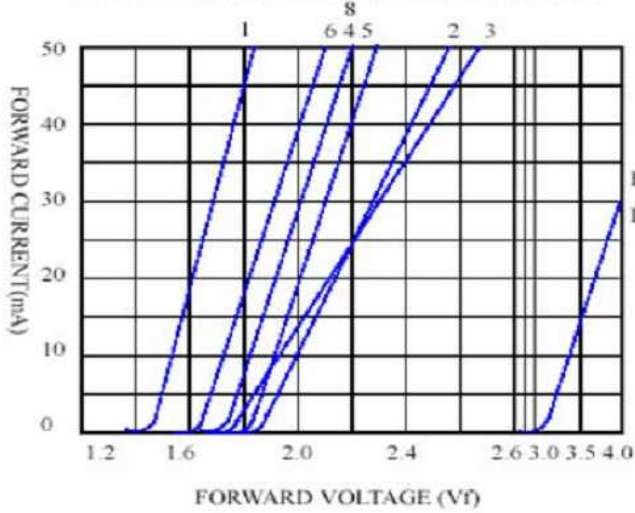
RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

FORWARD CURRENT VS. AMBIENT TEMPERATURE

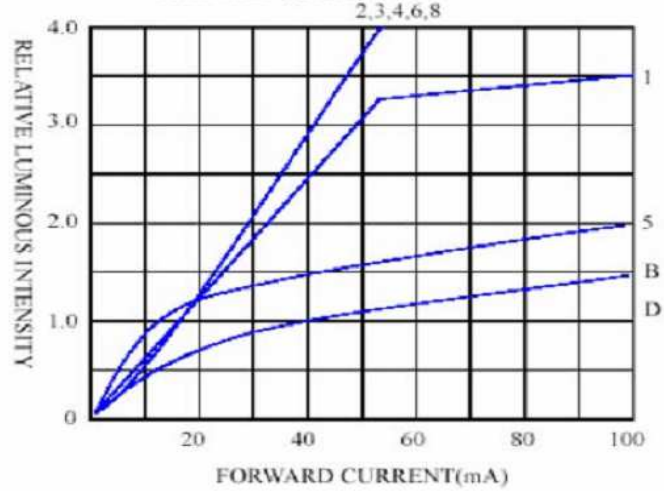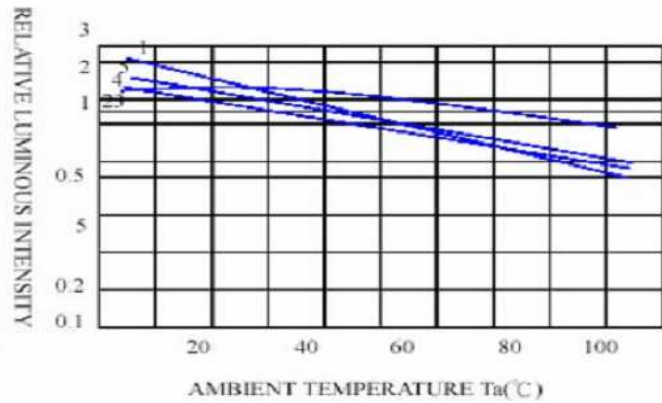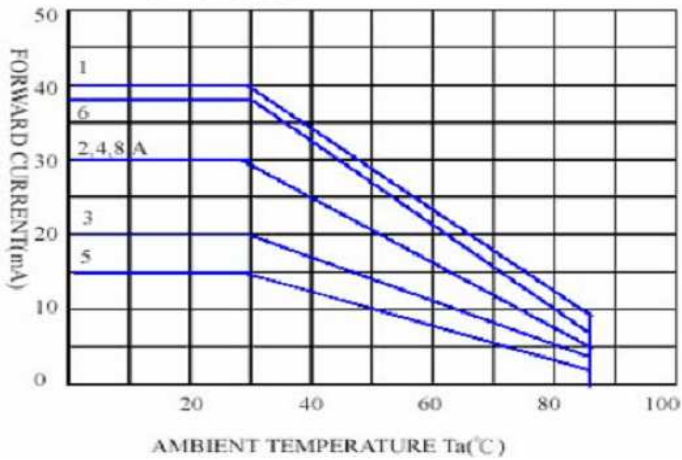|						
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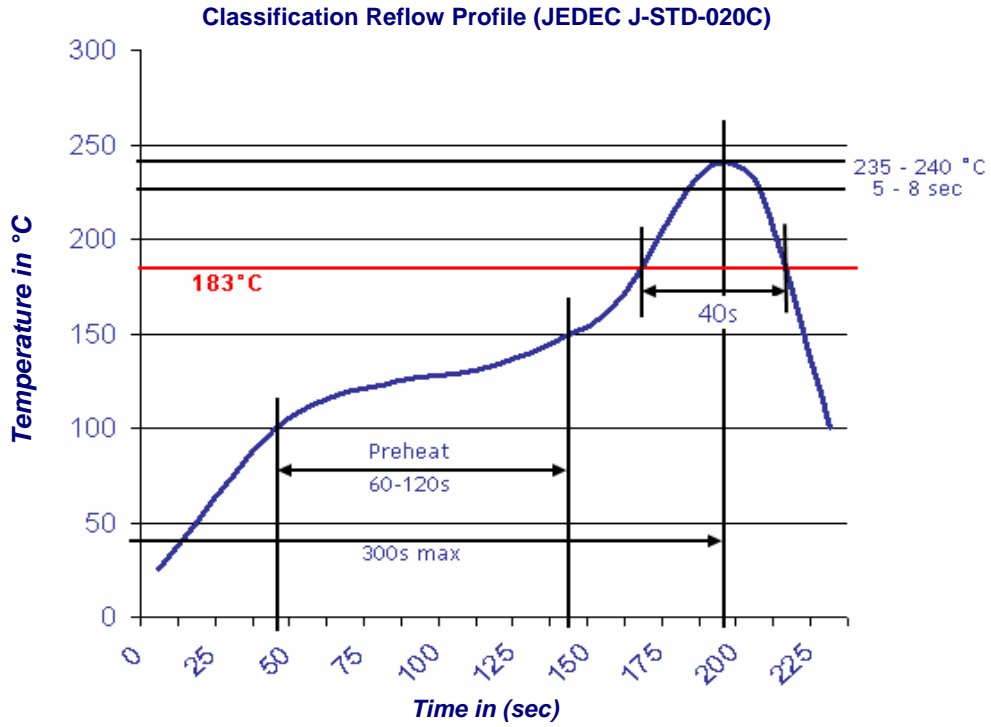
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Lead Free Solder

Classification Reflow Profile (JEDEC J-STD-020C)

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Chip LED
Green

Part No.: **M11G1003**

Customer:

REACH | RoHS Lead Free

Packing Specifications
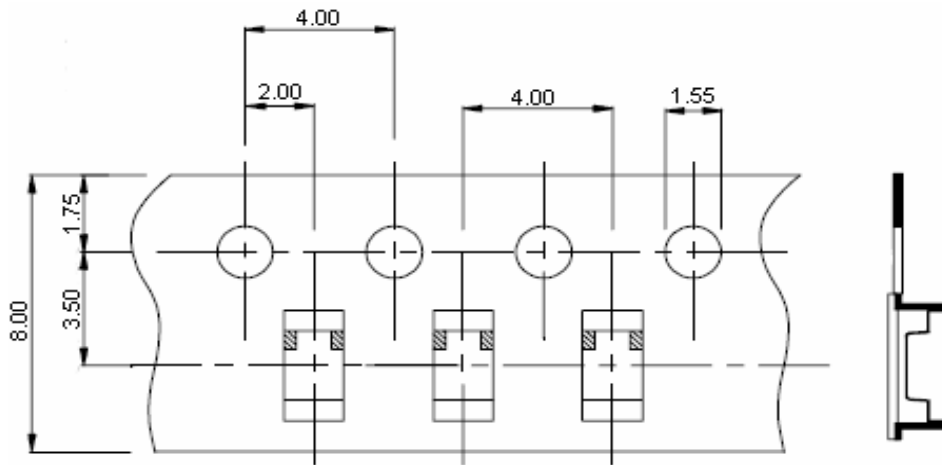
Reel Specifications
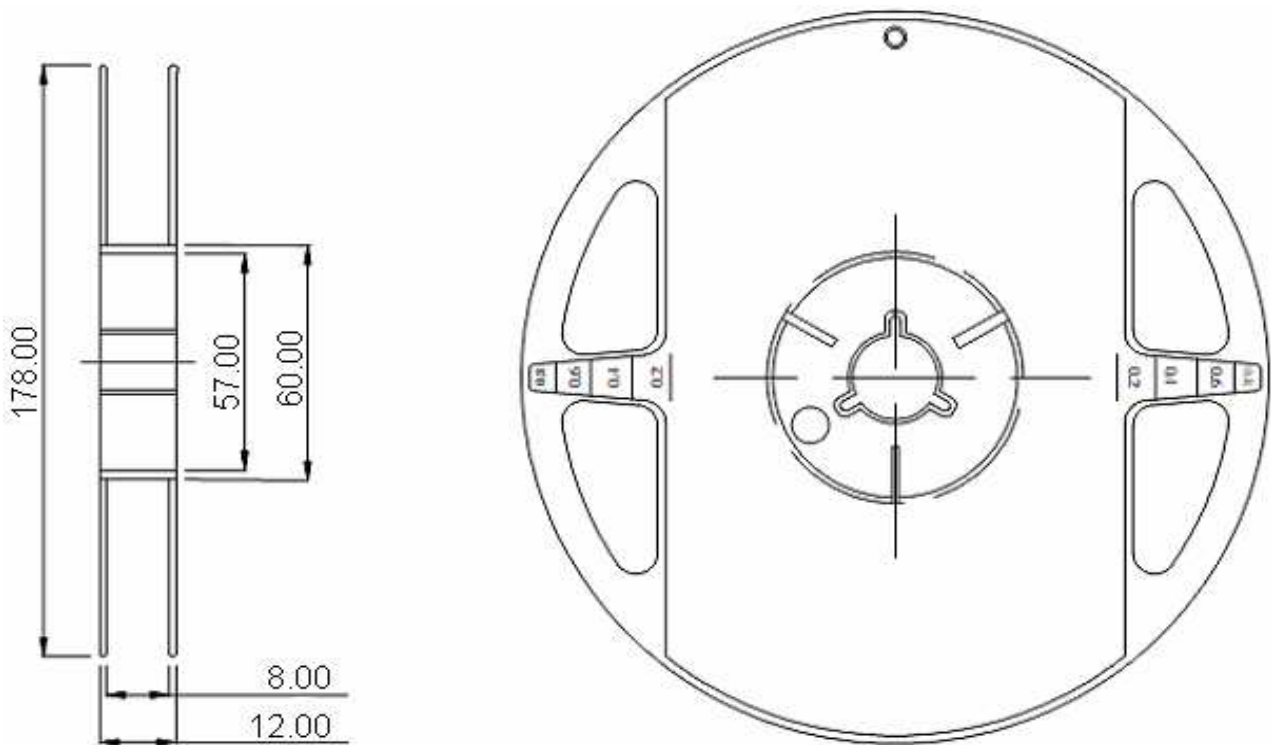
					Chip LED	
					Green	
				Part No.:	**M11G1003**	
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Handling Precautions

Compare to epoxy encapsulant that is hard and brittle, silicone is softer and flexible.
Although ist characteristic significantly reduces thermal stress, it is more susceptible
to damage by external mechanical force. As a result, special handling precautions need
to be observed during assembly using silicone encapsulated LED products. Failure
to comply might leads to damage and premature failure of th LED.

1. Handle the component along the side surfaces by using forceps or appropriate tools
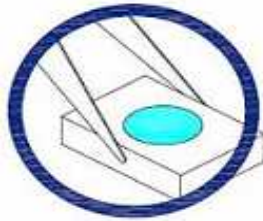
2. Do not directly touch or handle the silicone lens surfance. It may damage the
   internal circuitry.
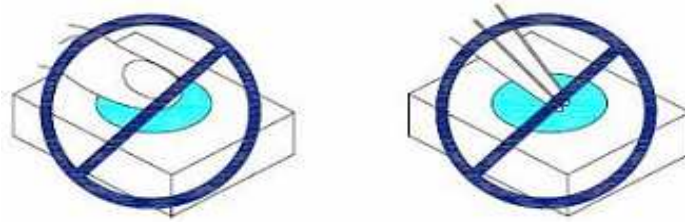
3. Do not stack together assembled PCBs containing exposed LEDs. Outside impact
   may scratch the silicone lens or damage the internal circuitry.
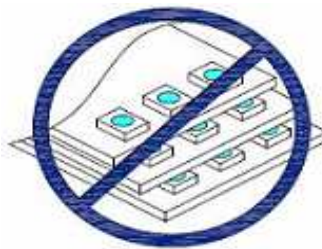
				Chip LED *Green*		
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4. The outer diameter of the TOP LED pickup nozzle should not exceed the size of the
   LED to prevent air leaks. The inner diameter of the nozzle should be as large
   as possible.

5. A pliable material is suggested for the nozzle tip to avoid scratching or damaging the
   LED surface during pickup.

6. The dimensions of the component must be accurately programmed in the
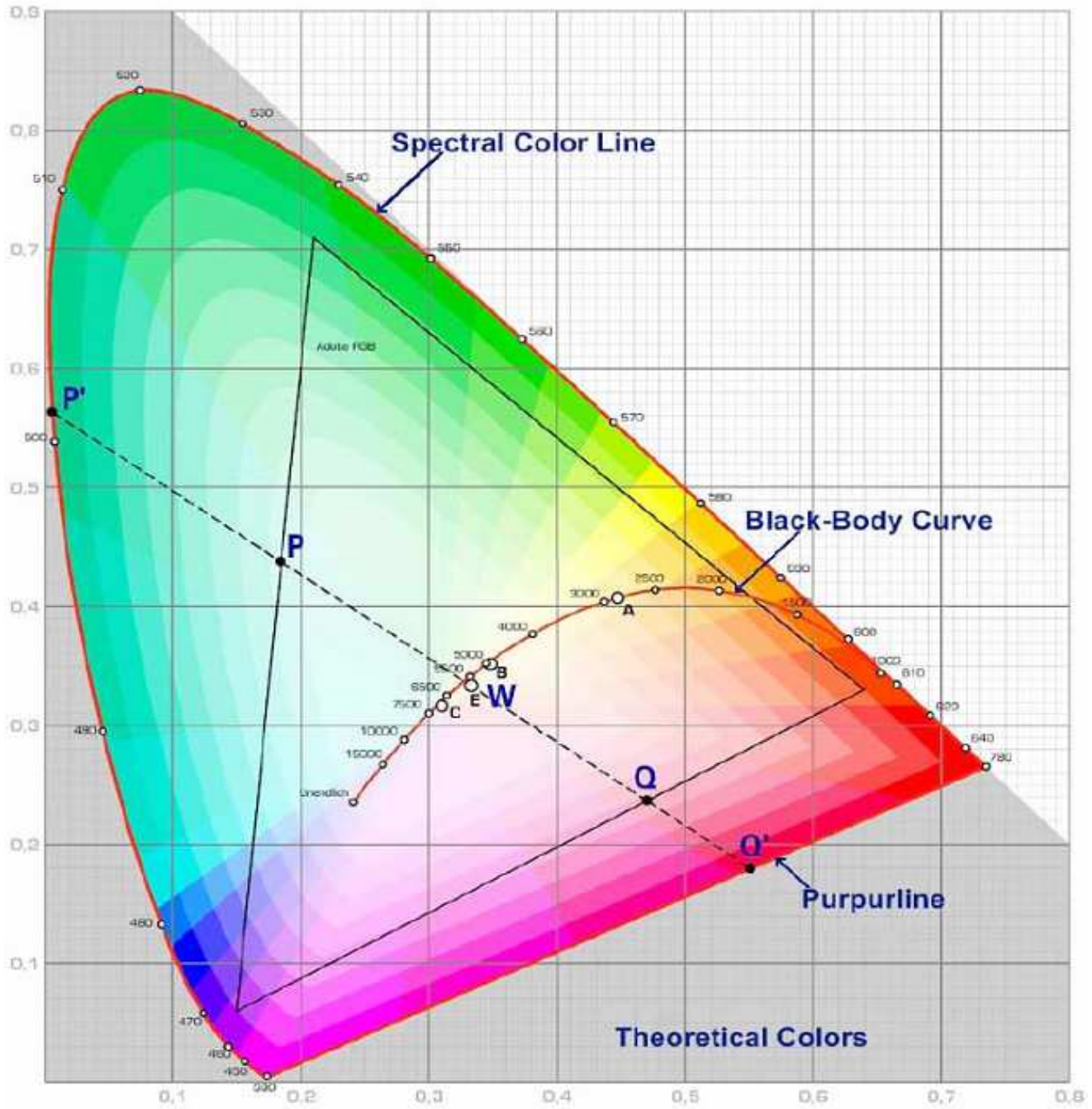   pick-and-place machine to insure precise pickup and avoid damage during production.
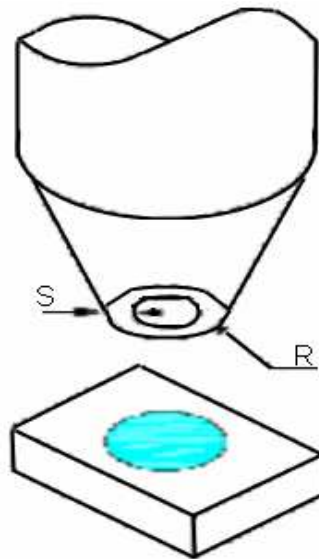
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