

# Application case

## Case 1 Korean 'A' customer

- ▷ Workpiece : RGP Lens (PMMA)
- ▷ Machine : DAC Lathe
- ▷ Tool : First roughing V15N03CAN (35° / R0.3 )  
Second finish D15N05CAR (55° / R0.5 )
- ▷ Working condition : RPM = 10,000rpm  
F = 1.8inch/min. (0.005mm/rev.)
- ▷ Result :  
Competitor 900pcs ~ 1,000pcs Vs. average 1,200pcs



## Case 2 Taiwan 'B' customer

- ▷ Workpiece : Soft lens core (BeCu)
- ▷ Machine : OptoForm 80
- ▷ Tool : D15N05CAR (55° / R0.5 )
- ▷ Working condition : RPM = 10,000rpm  
F = 0.004mm/rev.
- ▷ Result :  
Show good finish roughness & 32pcs machining



## Case 3 Korean 'C' customer

- ▷ Workpiece : Soft lens core (Cu)
- ▷ Machine : OptoForm 80
- ▷ Tool : D15N05CAR (55° / R0.5 )
- ▷ Working condition : RPM = 12,000 rpm  
F = 0.003mm/rev.
- ▷ Result : Show good finish roughness



# CHAMPDIA'S OPTHALMIC LENS TOOLS

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CHAMPDIA's contact lens tools are providing stable performance by controlling the burning issue successfully which frequently happened during machining operation.

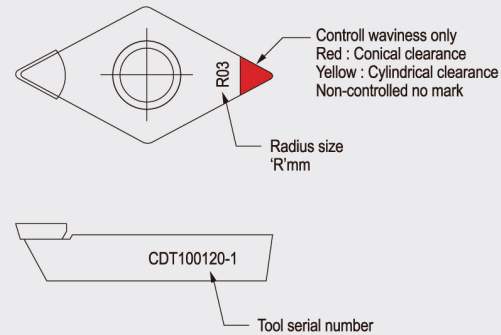


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## Type of DIAMOND INSERTS



|                                                              |                                                                          |                                                    |                                       |                                                                                                                                    |                                                                                                                                                                          |                                                                     |
|--------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------------------|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>D</b>                                                     | <b>15</b>                                                                | <b>N</b>                                           | <b>03</b>                             | <b>C</b>                                                                                                                           | <b>A</b>                                                                                                                                                                 | <b>N</b>                                                            |
| D : 55° Insert<br>DCGW070202<br>V : 35° Insert<br>VCGW110302 | Side relief angle<br>10 : 10°<br>12 : 12°<br>15 : 15°<br>or other degree | Diamond type<br>N : Natural<br>M : Mono(synthetic) | Nose radius<br>03 : R0.3<br>05 : R0.5 | Radius type<br>controlled waviness only<br>C : Conical → Red mark<br>Y : Cylindrical<br>→ Yellow mark<br>H : Conical + Cylindrical | Waviness control<br>A < 0.3 μm Color<br>(Red or Yellow)<br>B < 3.0 μm No color<br>(Non-controlled)<br>C < 0.05 μm<br>Special order<br>D < 0.1 μm<br>E < 0.2 μm Core type | Cutting direction<br>R : Right hand<br>L : Left hand<br>N : Neutral |

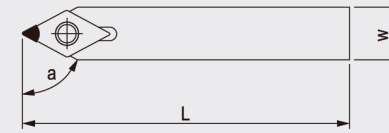
### Stock

|           | Include angle | Relief angle | Nose radius (mm) | Radius shape | Waviness | Cutting direction |
|-----------|---------------|--------------|------------------|--------------|----------|-------------------|
| D15N03CAN | 55°           | 15°          | 0.3              | Conical      | < 0.3 μm | Neutral           |
| D15N05CAN | 55°           | 15°          | 0.5              | Conical      | < 0.3 μm | Neutral           |
| V15N03CAN | 35°           | 15°          | 0.3              | Conical      | < 0.3 μm | Neutral           |
| V15N05CAN | 35°           | 15°          | 0.5              | Conical      | < 0.3 μm | Neutral           |

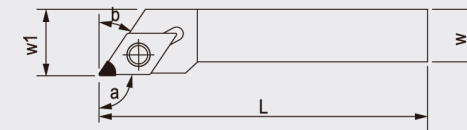
### All types is available

| Include angle | Relief angle | Rake angle | Nose radius (mm) | Radius shape  | Waviness       | Diamond type | Cutting direction |
|---------------|--------------|------------|------------------|---------------|----------------|--------------|-------------------|
| 35°           | 12°          | -2.5°      | 0.1              | Conical (red) | ~100 μm        | Natural      | Right hand        |
| 55°           | 15°          | 0°         | 0.2              | Cylindrical   | ~250 μm        | Synthetic    | Neutral           |
|               | 18°          | +2.5°      | 0.3              | (yellow)      | Non-controlled | (mono)       | Left hand         |
|               | etc          | etc        | 0.5              |               |                |              |                   |
|               |              |            | etc              |               |                |              |                   |

### DNN0850



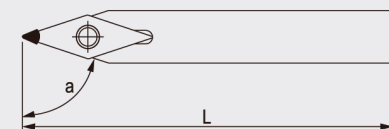
### DJR0850



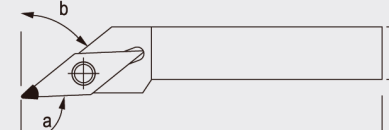
### DJL0850



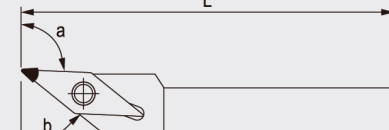
### VNN0850



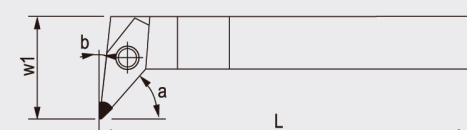
### VJR0850



### VJL0850



### VXR0850



### VXL0850



|                                                                             |                                                                    |                                                                     |                                                                                   |                             |
|-----------------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------|
| <b>V</b>                                                                    | <b>J</b>                                                           | <b>R</b>                                                            | <b>08</b>                                                                         | <b>50</b>                   |
| Insert type<br>D : 55° Insert<br>DCGW070202<br>V : 35° Insert<br>VCGW110302 | Approach angle<br>J : 93°<br>N : 62.5°<br>V : 72.5°<br>X : Special | Cutting direction<br>R : Right hand<br>L : Left hand<br>N : Neutral | Tool height by width<br>08 : 8mm × 8mm<br>06 : 6mm × 6mm<br>063 : 6.35mm × 6.35mm | Tool total length<br>'50'mm |

### Standard & Stock

| Holder  | Insert   | a     | b     | w | h | L  |
|---------|----------|-------|-------|---|---|----|
| DNN0850 | DCGW 55° | 62.5° | 62.5° | 8 | 8 | 50 |
| DJR0850 | DCGW 55° | 93.0° | 32.0° | 8 | 8 | 50 |
| DJL0850 | DCGW 55° | 93.0° | 32.0° | 8 | 8 | 50 |
| VNN0850 | VCGW 35° | 72.5° | 72.5° | 8 | 8 | 57 |
| VJR0850 | VCGW 35° | 93.0° | 52.0° | 8 | 8 | 57 |
| VJL0850 | VCGW 35° | 93.0° | 52.0° | 8 | 8 | 57 |
| VXR0850 | VCGW 35° | 50.0° | 6.0°  | 8 | 8 | 57 |
| VXL0850 | VCGW 35° | 50.0° | 6.0°  | 8 | 8 | 57 |