



Turning tool

Non-Ferrous Application Series

Tungaloy Report No. 555S1-G

Introducing **DX200** grade inserts — **100% diamond grade** perfect for machining tungsten carbide and other **superhard non-ferrous metals**

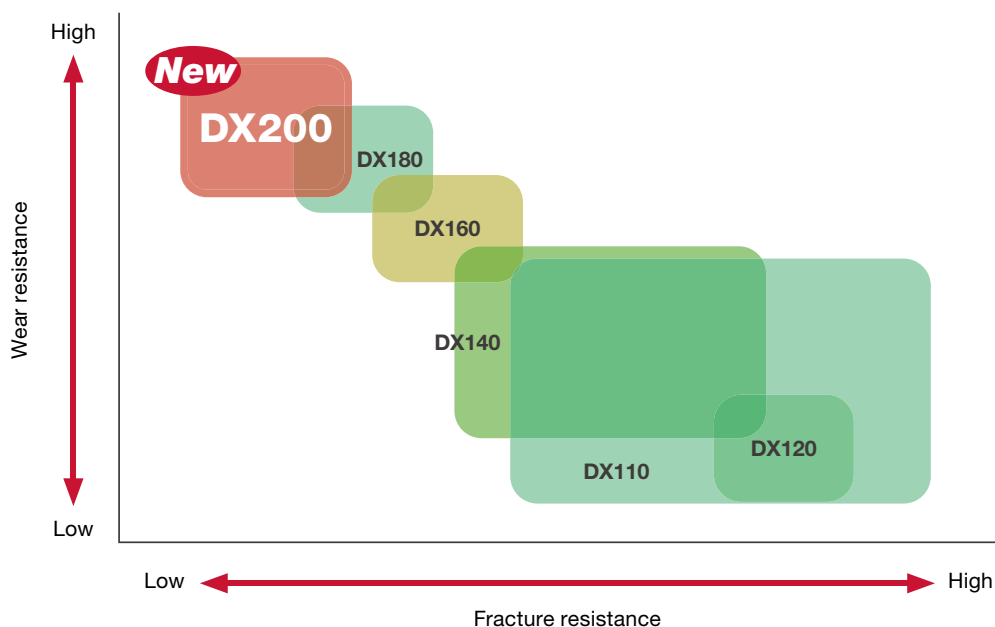


Non-Ferrous Application Series

DX200 — Ultra hard grade with premium wear resistance

■ 100% diamond grade

- **DX200** has the highest hardness of all DX grades, making it ideal for machining tungsten carbide and other superhard non-ferrous metals.
- **DX200** has no catalyst metal such as binder in its structure that would cause contaminations of the machined surfaces. This feature makes the grade suitable for machining sputtering targets for semiconductor industries.



■ Sharp cutting edge

DX200 has a sharp cutting edge that provides excellent surface finish.

Cutting edge shape



DX200

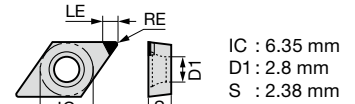


Conventional PCD grade

PCD Insert POSITIVE TYPE

- : Continuous cutting
- ◐ : Light interrupted cutting
- ✱ : Heavy interrupted cutting

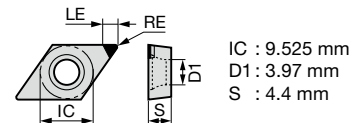
DC



**55° Rhombic
Positive 7°
with hole**

| Application | Designation | Dimension (mm) | | No. of corners | Chipbreaker | DX200 | | | | | | | | | | | | | | |
|-------------|-----------------|----------------|-----|----------------|-------------|-------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | RE | LE | | | | | | | | | | | | | | | | | |
| Finishing | 1QP-DCGW070202F | 0.2 | 3.0 | 1 | | ● | | | | | | | | | | | | | | |
| | 1QP-DCGW070204F | 0.4 | 3.0 | 1 | | ● | | | | | | | | | | | | | | |

DC



**55° Rhombic
Positive 7°
with hole**

| Application | Designation | Dimension (mm) | | No. of corners | Chipbreaker | DX200 | | | | | | | | | | | | | | |
|-------------|-----------------|----------------|-----|----------------|-------------|-------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | RE | LE | | | | | | | | | | | | | | | | | |
| Finishing | 1QP-DCGW11T302F | 0.2 | 3.0 | 1 | | ● | | | | | | | | | | | | | | |
| | 1QP-DCGW11T304F | 0.4 | 3.0 | 1 | | ● | | | | | | | | | | | | | | |

● : Line up

STANDARD CUTTING CONDITIONS

| ISO | Workpiece materials | Grade | Cutting speed Vc (m/min) | Feed f (mm/rev) | Depth of cut ap (mm) |
|-----|--------------------------------------|-------|--------------------------|-----------------|----------------------|
| N | Tungsten carbide (HRA80 - 95) | DX200 | 5 - 30 | 0.02 - 0.1 | 0.02 - 0.2 |
| | FRP | DX200 | 500 - 1000 | 0.05 - 0.3 | 0.1 - 1 |
| | CFRP | DX200 | 100 - 700 | 0.05 - 0.3 | 0.1 - 1 |
| | Carbon | DX200 | 300 - 500 | 0.05 - 0.3 | 0.1 - 1 |
| | Green ceramics | DX200 | 100 - 200 | 0.02 - 0.1 | 0.1 - 1 |
| | Sputtering targets for semiconductor | DX200 | 10 - 100 | 0.02 - 0.1 | 0.02 - 0.2 |



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