

# Mono

## Monodress MDL

The dresser log product from the Mono synthetic single crystal diamond range

Monodress MDL is a synthetic single crystal diamond product from Element Six specially engineered for high resistance to abrasive wear in dressing and parting tool applications.

### APPLICATIONS

Monodress MDL is suitable for all dresser types – single-point, multi-point, blade, rotary, roller etc. The size of dresser is determined by the application and suitable dimensions can be recommended on request.

### TOOL FABRICATION

Monodress MDL has outstanding thermal properties and very high thermal oxidation resistance. It is ideal for secure mounting when using traditional non-ferrous metal sintering. Alternatively, the synthetic single crystal diamond dressers can be brazed onto a dresser body using an active braze alloy in a non-oxidising environment.

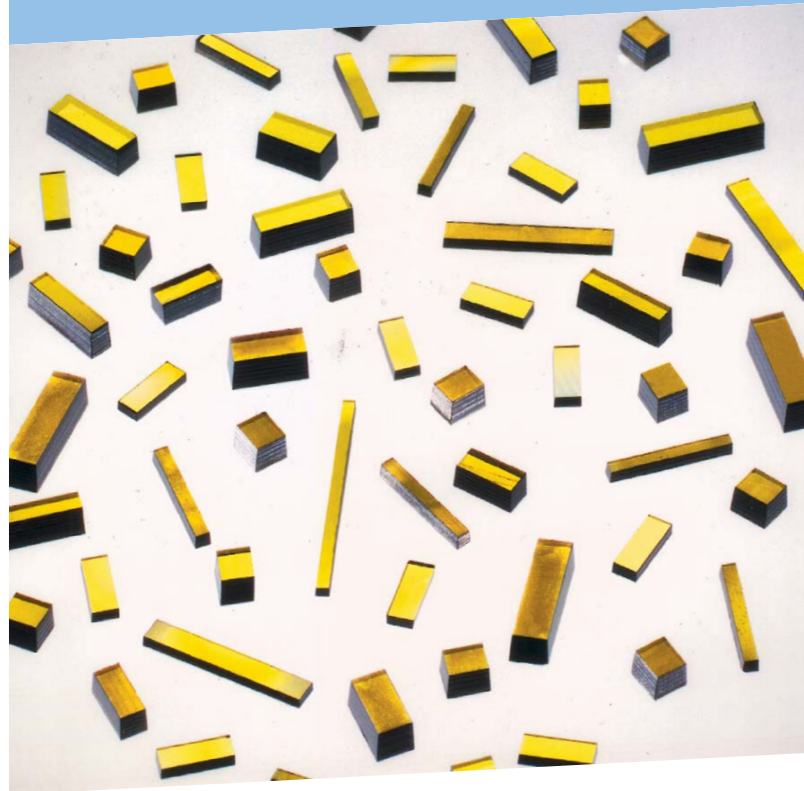
Using diamond grinding techniques, the dressers can be shaped in-situ to make cone, chisel and rounded shapes.

### PERFORMANCE

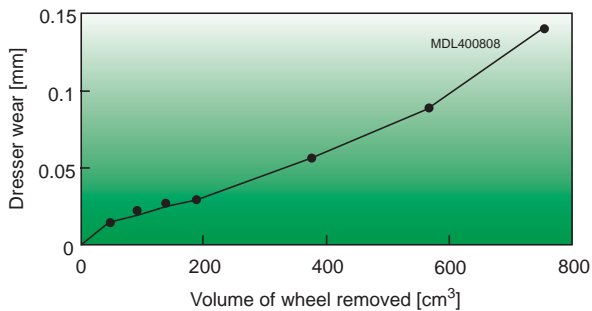
Shown overleaf is a typical performance result for Monodress MDL400808 synthetic single crystal dresser logs in a single-point wheel dressing test.

## Advantages

- Consistent wear from dresser to dresser.
- Uniform wear over the entire length of the dresser.
- Easy-to-use toolmaking material.
- Choice of two dresser orientations.
- Excellent thermal stability.
- Constant dresser width – no resetting needed.
- 100 (four point) orientation on all faces.



*Monodress MDL is supplied as rectangular logs in various lengths and square or rectangular cross-sections. Each log has four-point faces on all sides.*

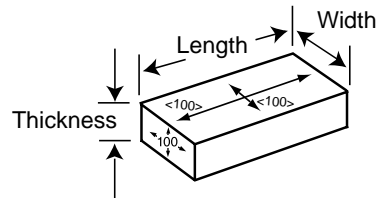


### Dressing Parameters

Wheel type	WA46KV (300 mm diameter x 50 mm)
Speed	2300 rpm
Infeed	20 microns per pass
Cross feed	0.4 m/min
Coolant	Flood coolant

### AVAILABILITY

Monodress MDL logs provide the toolmaker with exceptional ease of tool fabrication by virtue of the fact that the four-point faces are easily defined and located with their grinding directions as shown. By the simple expedient of rotating the logs through 45° about their central axis, it is possible to expose the two-point direction with its potentially greater wear resistance. Thus, the toolmaker and end user are provided with a wide variety of options for both manufacture and use.



Monodress MDL products with non-standard dimensions are available by request.

Monodress MDL			
Product nomenclature	Dimensions [mm] length x width x thickness	Product nomenclature	Dimensions [mm] length x width x thickness
MDL150303	1.5 x 0.3 x 0.3	MDL400404	4.0 x 0.4 x 0.4
MDL150505	1.5 x 0.5 x 0.5	MDL400606	4.0 x 0.6 x 0.6
MDL200303	2.0 x 0.3 x 0.3	MDL400707	4.0 x 0.7 x 0.7
MDL250606	2.5 x 0.6 x 0.6	MDL400808	4.0 x 0.8 x 0.8
MDL250808	2.5 x 0.8 x 0.8	MDL401010	4.0 x 1.0 x 1.0
MDL251005	2.5 x 1.0 x 0.5	MDL401212	4.0 x 1.2 x 1.2
MDL251212	2.5 x 1.2 x 1.2	MDL401313	4.0 x 1.3 x 1.3
MDL300303	3.0 x 0.3 x 0.3	MDL401515	4.0 x 1.5 x 1.5
MDL300404	3.0 x 0.4 x 0.4	MDL500505	5.0 x 0.5 x 0.5
MDL300505	3.0 x 0.5 x 0.5	MDL500606	5.0 x 0.6 x 0.6
MDL300606	3.0 x 0.6 x 0.6	MDL500808	5.0 x 0.8 x 0.8
MDL300808	3.0 x 0.8 x 0.8	MDL501010	5.0 x 1.0 x 1.0
MDL301010	3.0 x 1.0 x 1.0	MDL501212	5.0 x 1.2 x 1.2
MDL301212	3.0 x 1.2 x 1.2	MDL501515	5.0 x 1.5 x 1.5
MDL301515	3.0 x 1.5 x 1.5		