

MTP[®] Connector Comparison to MPO connector

MTP is a registered trademark of US Conec, Ltd.

What is an MPO Connector?

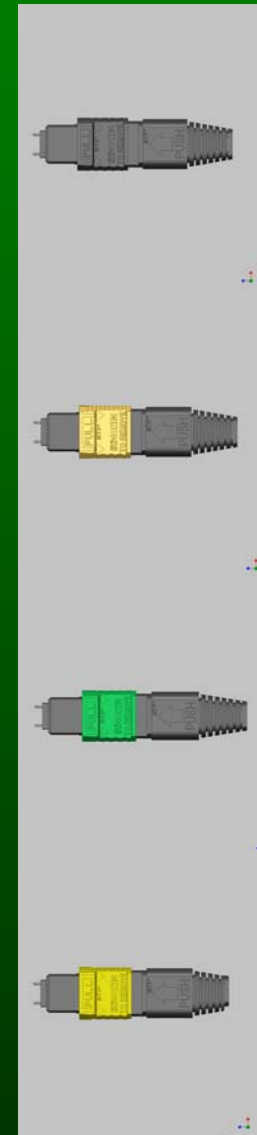
The MPO connector family is defined by IEC-61754-7.

The MTP multi-fiber connector is US Conec's trademarked name for our MPO connector. The MTP connector is fully compliant with IEC-61754-7; therefore it is an MPO connector.

While there are many MPO connectors on the market (Furukawa, Sumitomo, Fujikura), the MTP parts are distinctly different. The MTP connector is a high performance MPO!

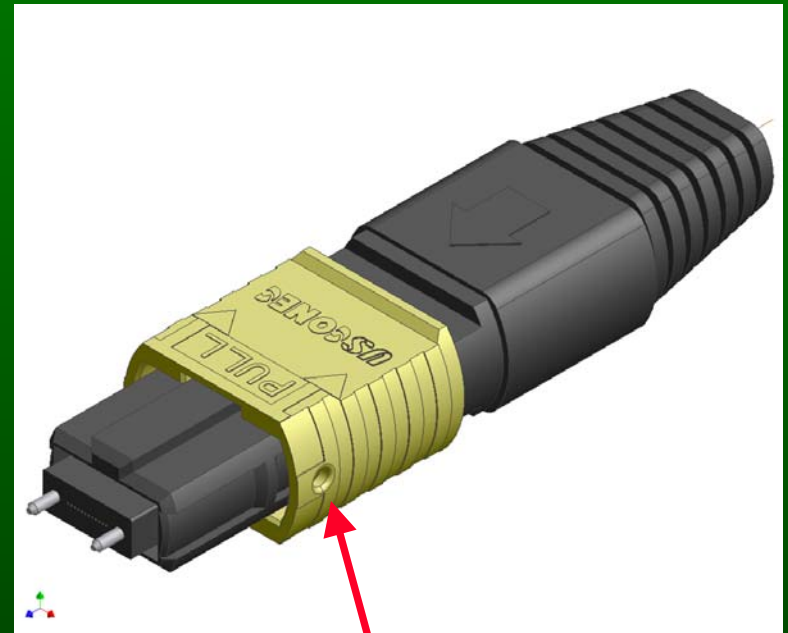
MTP Color Coding

- **Black** – 50 μ m multimode
- **Beige** – 62.5 μ m multimode
- **Green** – standard single-mode
- **Mustard** – MTP Elite™ low loss single-mode

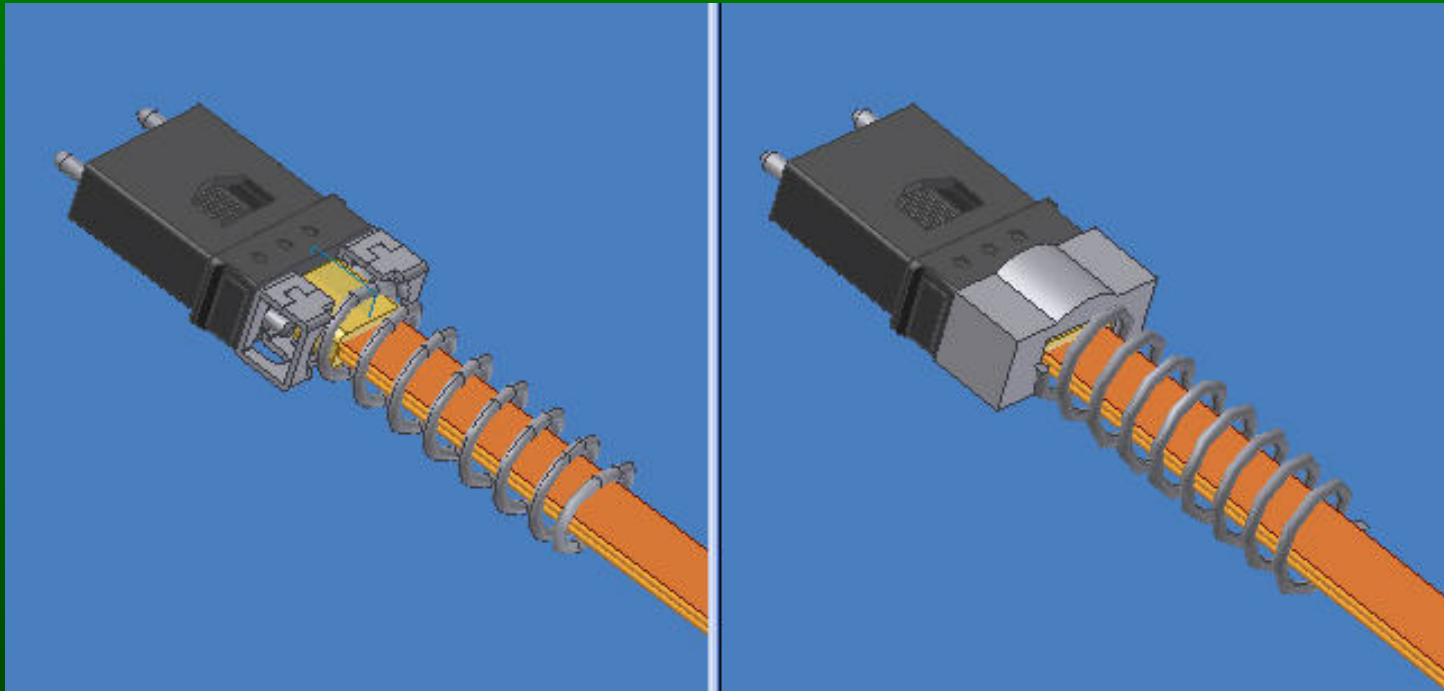


Removable Housing

- Allows easy transition from male to female and vice versa
- Allows re-polishing



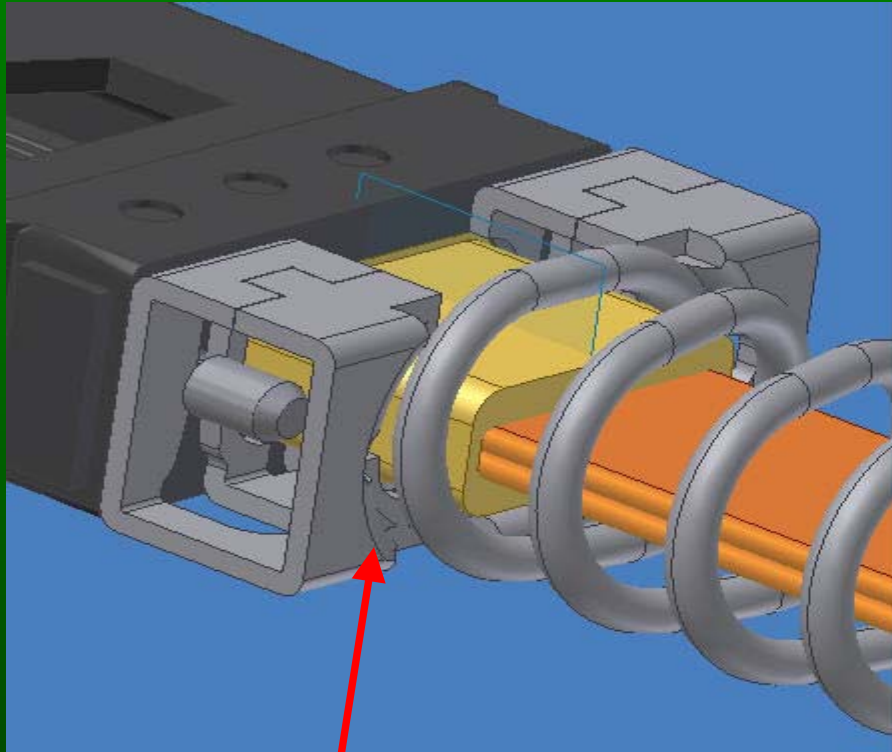
Internal Components



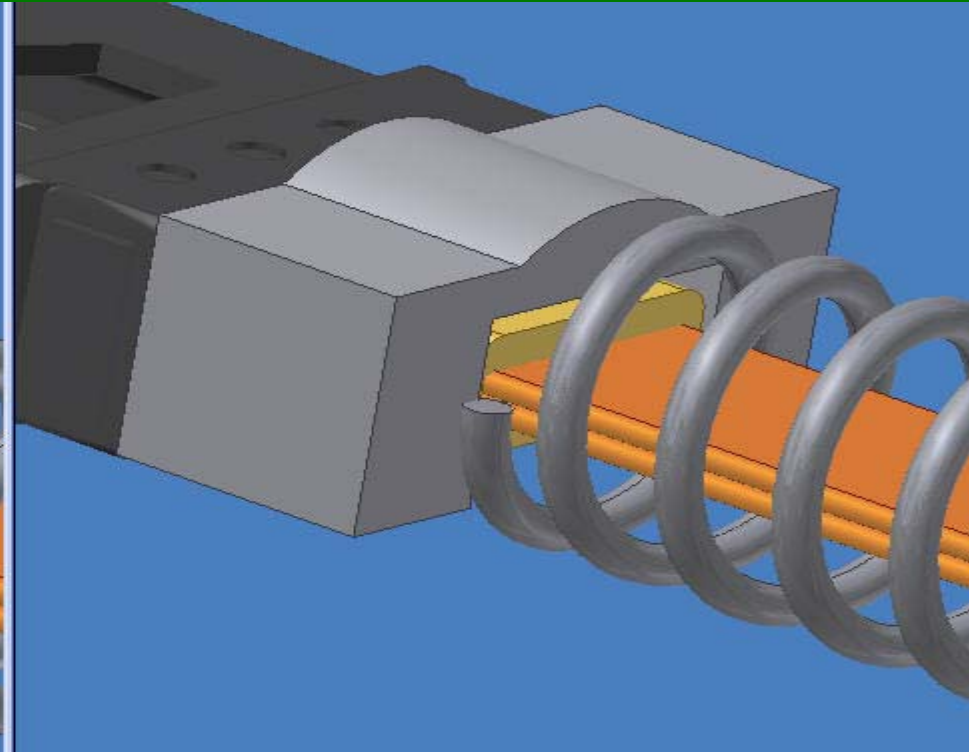
MTP

MPO

Internal Components



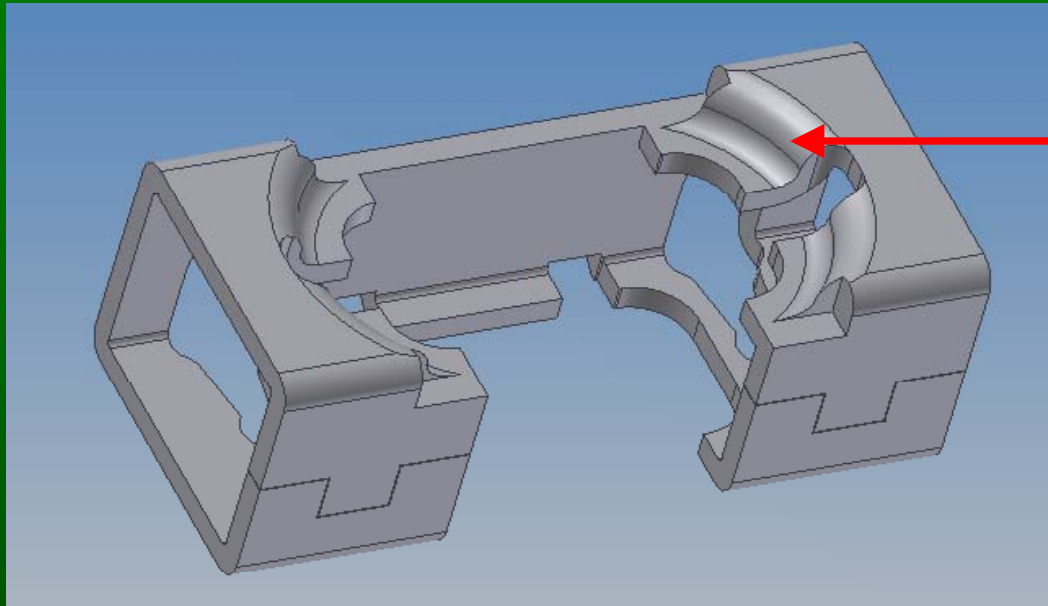
MTP recessed metal pin clamp and oval spring



MPO plastic pin clamp and round spring

The spring is not constrained and may damage the ribbon.

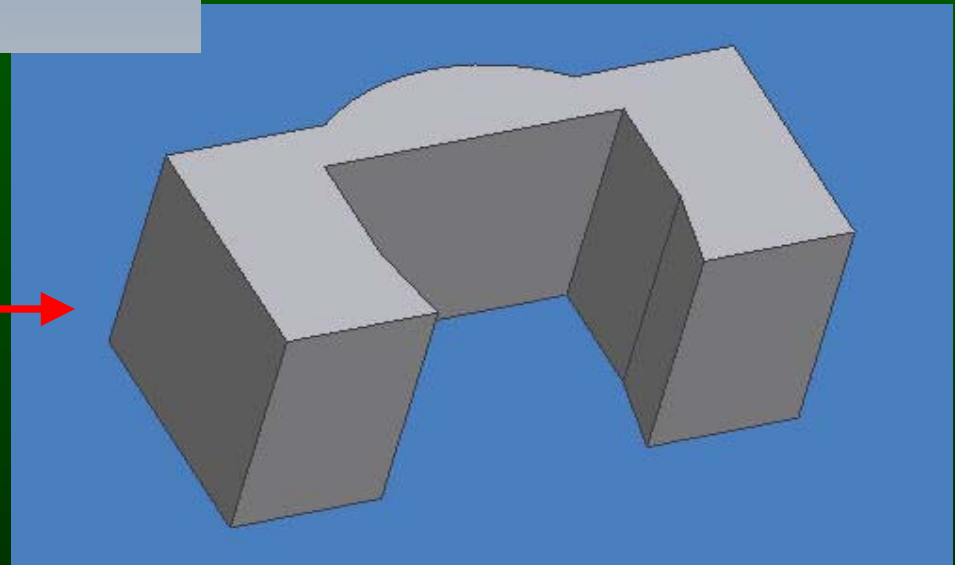
Pin Clamp



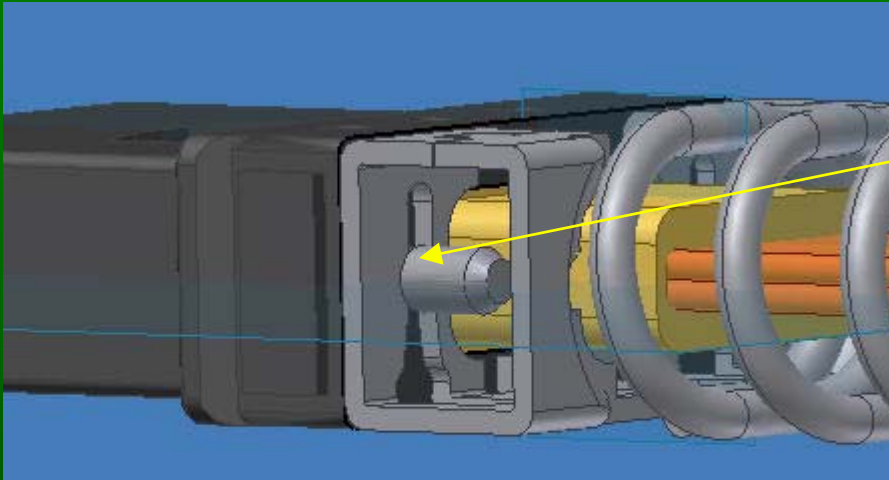
MTP recessed pin clamp

Provides seating surface for spring.

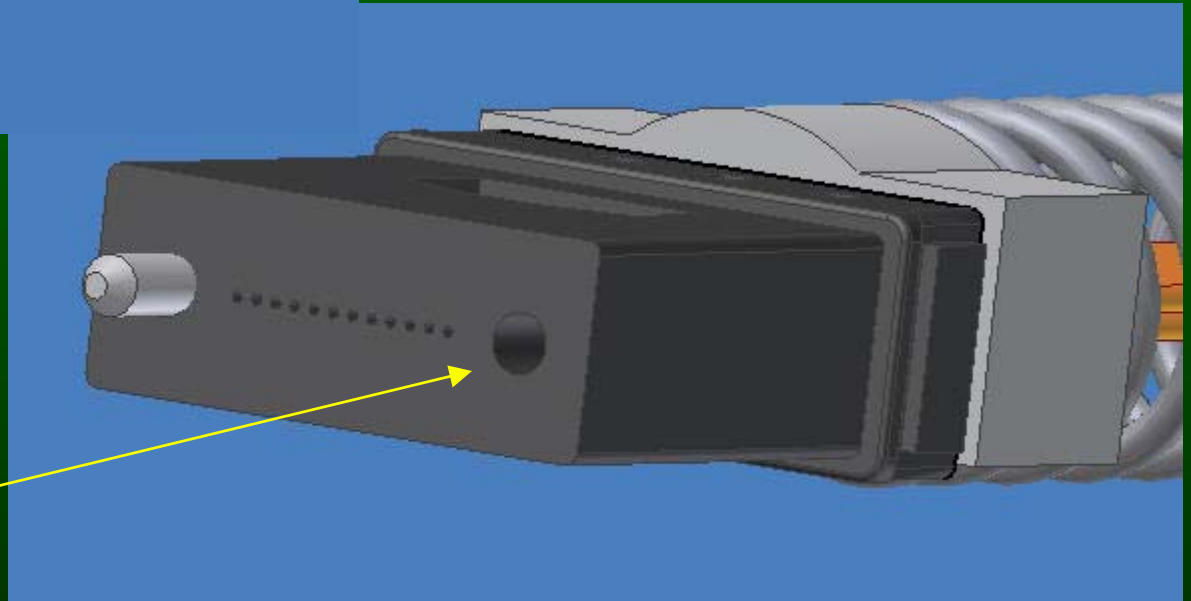
Typical plastic MPO pin clamp



Improved MTP Pin Clamp

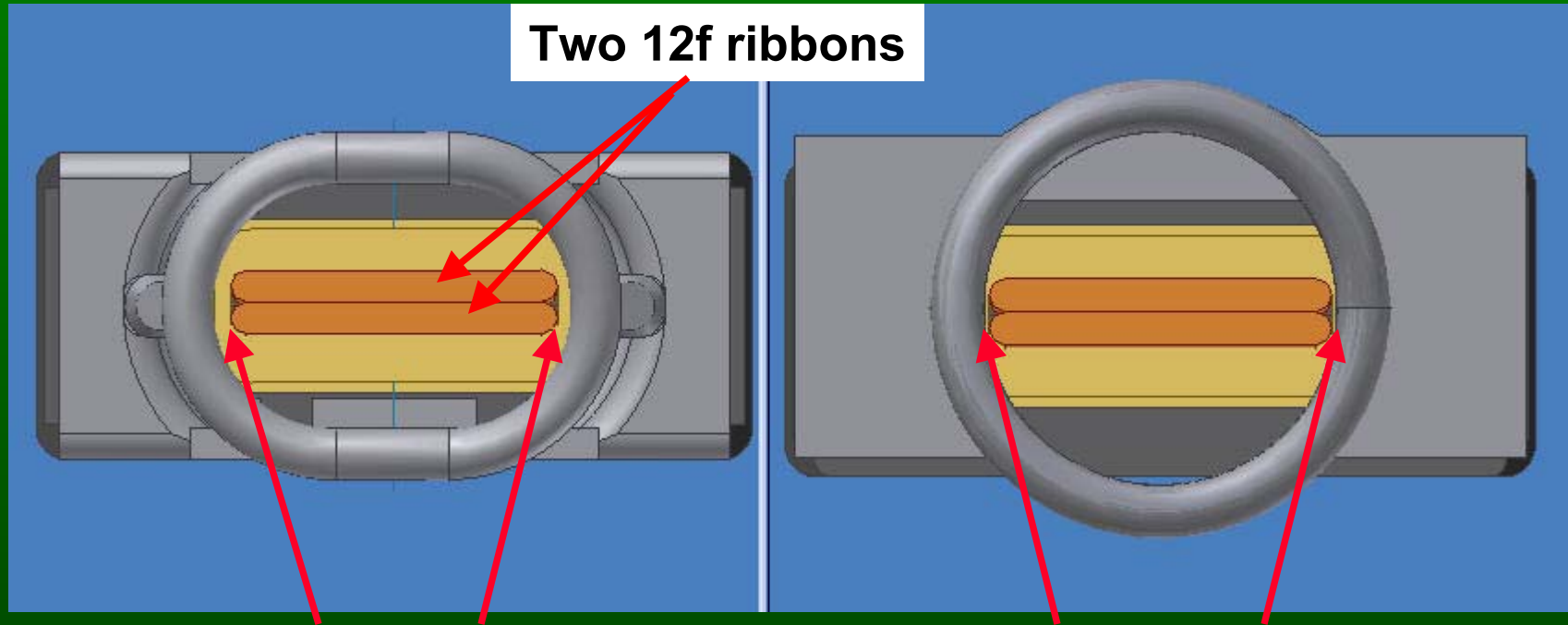


MTP Recessed Pin Clamp
Makes pin transfer impossible



Plastic MPO Pin Clamp
Pin transfer possible

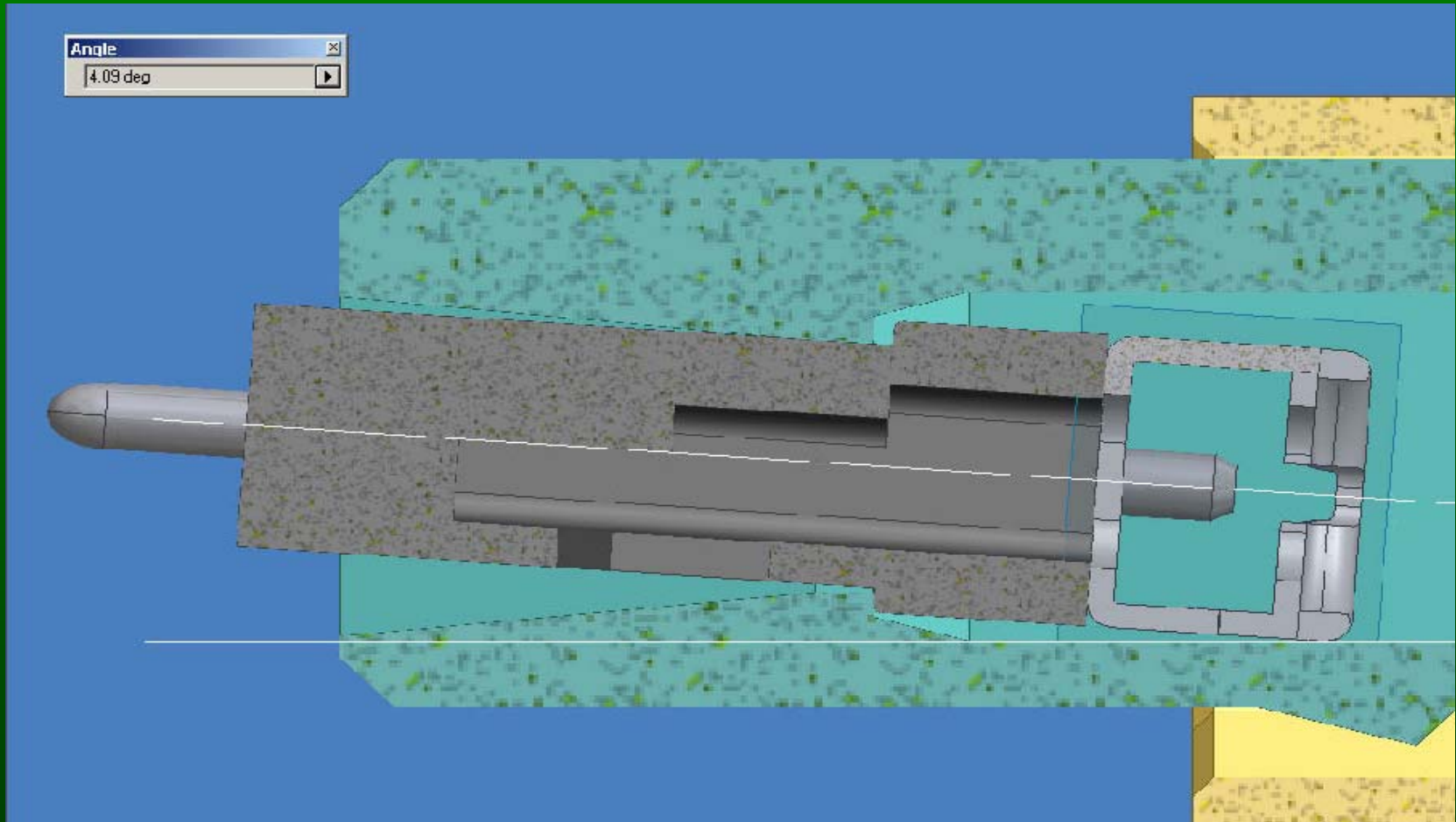
Spring



MTP oval spring provides more ribbon clearance; enhances mechanical performance.

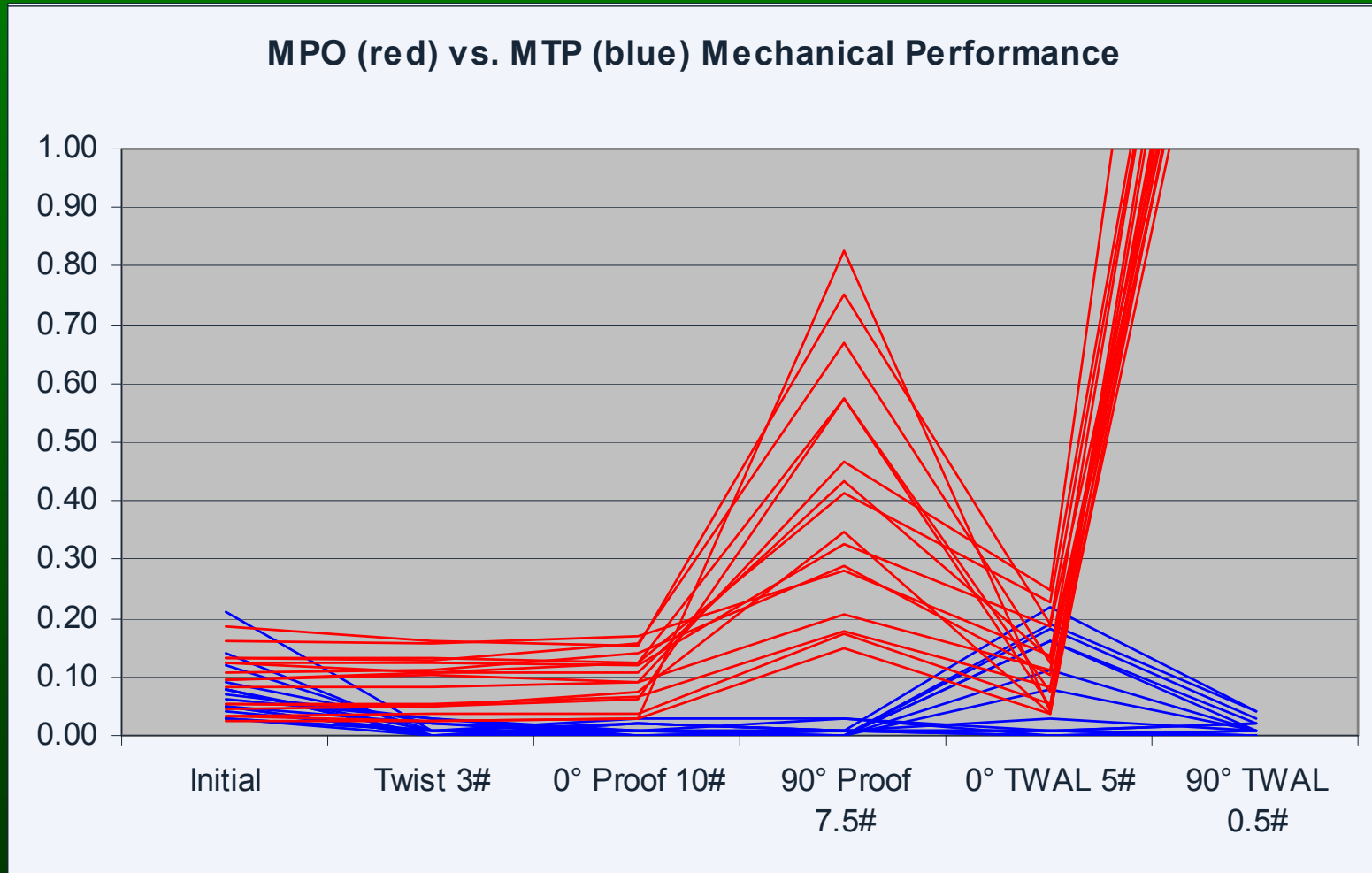
MPO round spring allows less ribbon clearance; limits mechanical performance.

Floating Ferrule



The MT ferrule can move freely inside the MTP housing while mated. This protects it from strain during side load.

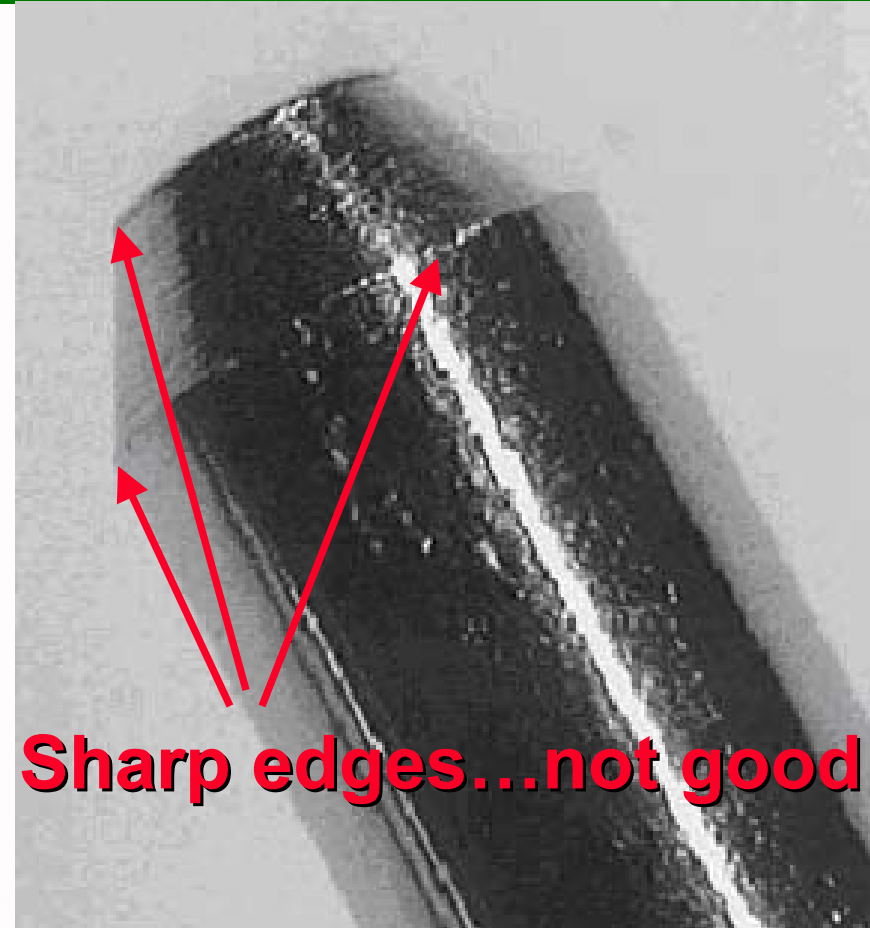
Superior Mechanical Performance



Elliptical Guide Pin

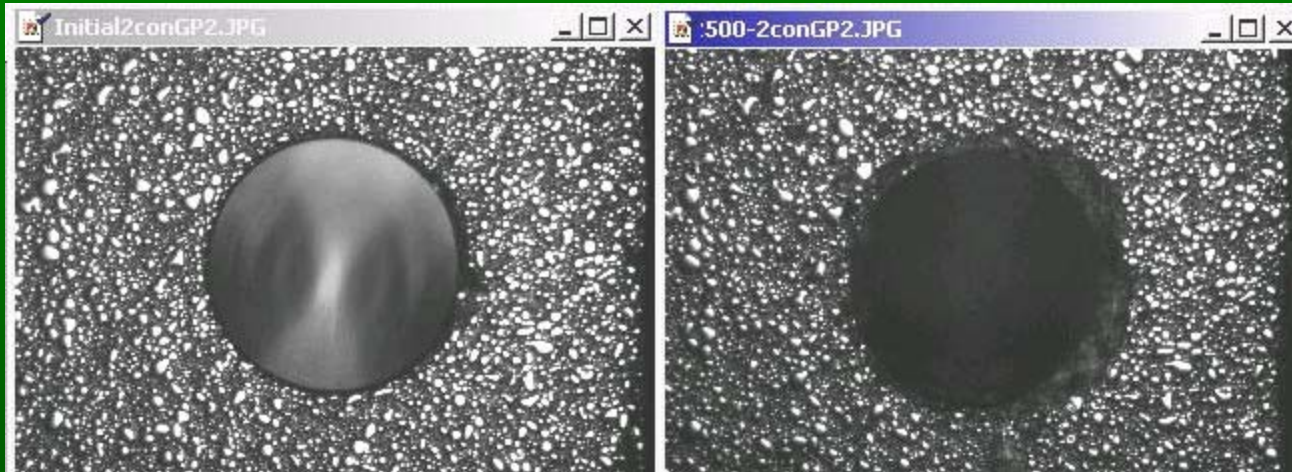


MTP Guide Pin

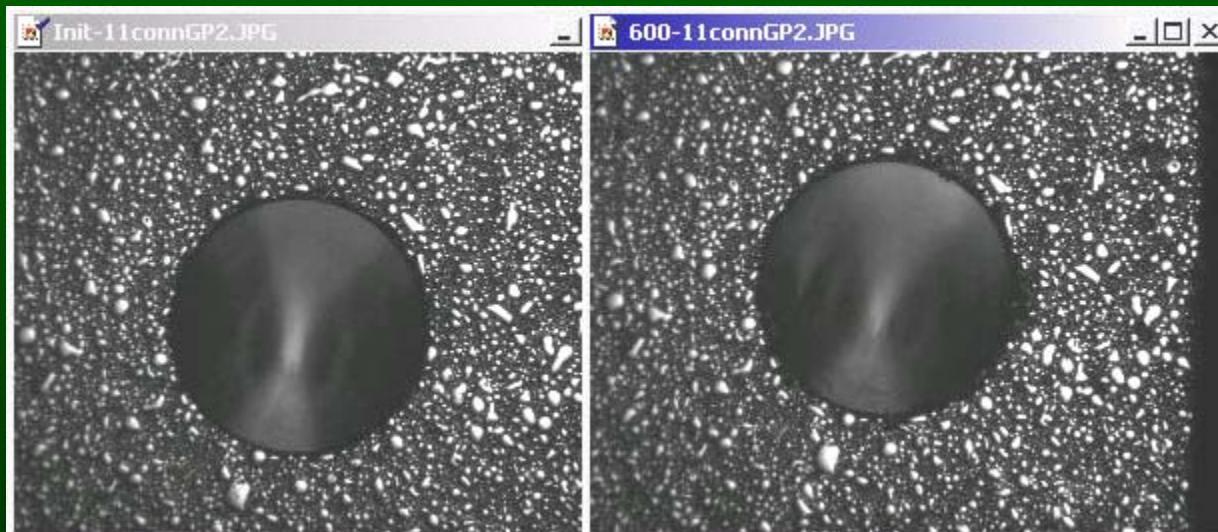


MPO Guide Pin

Durability Results

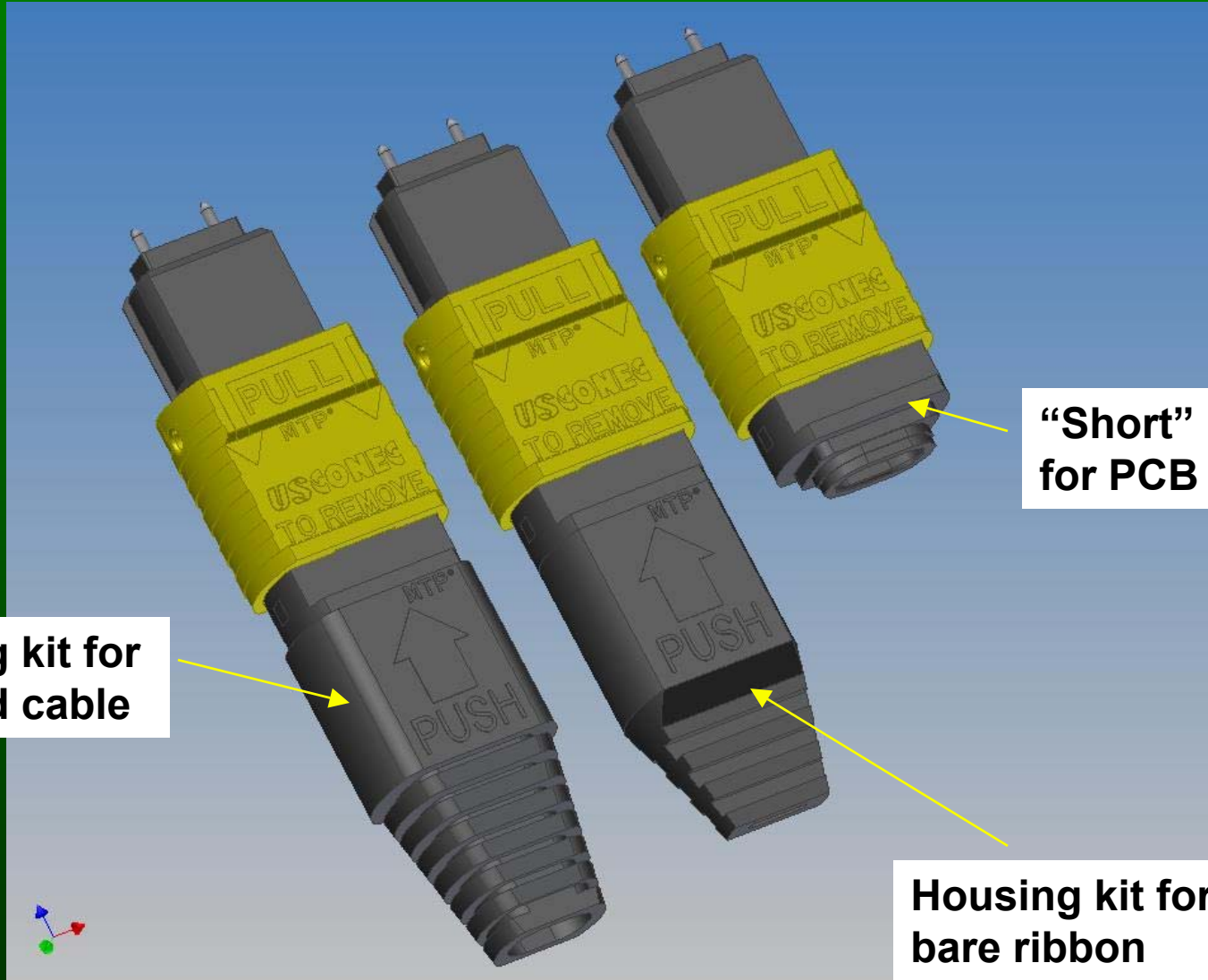


Typical MPO
guide hole
damage after
500 matings



MTP guide hole
damage after
600 matings

Jacketed, Ribbon, and Short Versions



Housing kit for jacketed cable

“Short” housing kit for PCB applications

Housing kit for bare ribbon

Summary

- **Color coding by fiber type**
- **Removable housing for gender change and rework**
- **Metal pin-clamp to prevent pin transfer**
- **Recessed pin clamp to prevent spring-ribbon contact**
- **Oval spring for more ribbon clearance**
- **Increased ferrule float for improved mechanical performance (US patent # 6085003)**
- **Elliptical guide pin tip for improved durability via less guide-hole wear (US patent pending)**
- **Connector kits for jacketed cable, ribbon, and board applications (45% footprint reduction) available**