RMS-1

ROTATING ADAPTER® FIBER OPTIC VIDEO SCOPE

PATENT PENDING

"INSPECTION FROM A PRECISION CLEANING POINT OF VIEWTM"

- ★ What is a Rotating Adapter?
- **★** How is it different?
- **★** How does it work?



WHAT IS A ROTATING ADAPTER[©]?

Existing video inspection instruments use connections between the camera and the connector providing a two-dimensional 'head-on' view. RMS-1® offers direct color images of the numerous segments of the connector as well as pictures of contamination in still and motion recording. There are various size RMS-1 rotating adapters. The 3-D printing capability means versatility and customization for your specific requirements.

There is more to be seen on an end face than the limits described in IEC 61300-3-35 and shown by existing microscopes. The patent-pending RMS-1 rotating adapter provides a parallax rotating effect that enables not only the wider surface imagery, but also, the ability of the camera to 'back away' and provide a wider array of images other than the 'horizontal end face'. Contamination is defined beyond the limited areas of even the finest 'auto detect' systems. This means more reliable installations: seeing what is 'dirty' is the first step to assure the connector is 'good-to-go'.

This 'rotation' is not only around the camera, but also the design of the adapter enables a "Parallax 3-D Image" by rotating the cone around the connector as well. This is accomplished by a loose fit between the surfaces that still enables unique images seen here.

The system is 'a little different' and requires a short time to familiarize the operation. It's not difficult and easy to master by those who can fusion splice and read an OTDR!

Existing video inspection directs cleaning procedures that end up being inadequate and often require multiple efforts. RMS-1 is inspection from cleaning point of view: knowing where to clean can result in first time cleaning. The two perspectives are not the same!



Tactical, commercial aviation, broadcast, mining and oil field applications use expanded beam connectors.

Some data centers are also deploying.

These are typically viewed with a jeweler's loupe. There was no practical and usable video inspection for these connector types before invention of RMS-1.

Seen above and in detail below is the 8 Channel TE® connection. The adapter is also applicable for TFOCA, other large body connectors.

The instrument can also be used to observe electrical connectors of this type.



While the primary concern has been to clean the 'lens' on expanded beam, the reality is there are other 'cross-contamination soil points'.



With appreciation to Amphenol®



The result of parallax imagery is various aspects of the connector end face, adapter and even the alignment sleeve are easily observed



Debris may not only be present on the end face.



By adjusting the parallax at the camera and adapter, images as these are easily captured and recorded in still or motion video.

Over the last fifteen years, Ed Forrest has studied the 3-D nature of fiber optic connectors and contamination. These are only a few of more than 600 images that form the 'proof-of-concept' of RMS-1. However, the over-riding reality is connectors and contamination are not two-dimensional 'flatland' and more than 2,000 years of science backs the concept of 3-D inspection to assure the future of your work tomorrow, and the Industry for many years into the future.



There is a complete training program to support RMS-1 that includes a new text book and 'train-the-trainer sessions. Please inquire.