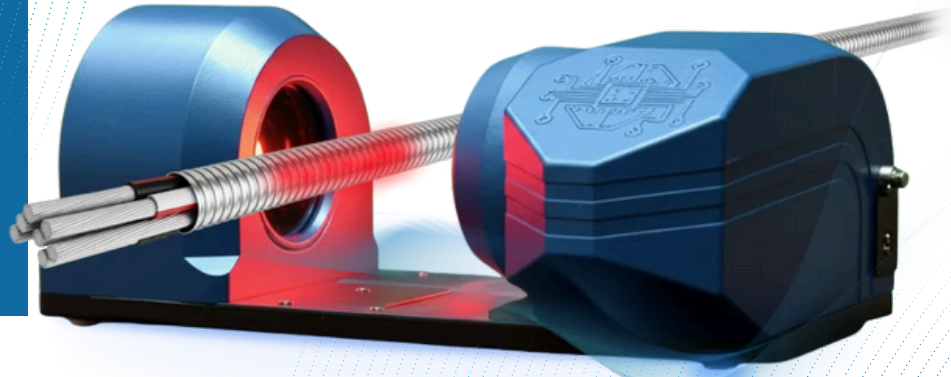# CORPEX

Machine Vision for Wire & Cable

- REAL-TIME INSPECTION FOR WIRE & CABLE
- AI MEASUREMENT FOR ARMORED PRODUCTION
- DETECT DEFECTS BEFORE SCRAP IS CREATED
- TRACK OD, PITCH, AND LENGTH LIVE

Real-Time Control

CORPEX Machine Vision for Wire & Cable monitors key dimensions at production speed, measuring in real time and alerting operators instantly when values drift out of tolerance.

- ✓ Real-time OD measurement
- ✓ Convolution pitch tracking
- ✓ Optional monitoring
- ✓ Instant out-of-spec alarms
- ✓ Quality data logging
- ✓ Production traceability

Built for Armoring Lines

Designed for armored and convoluted cable manufacturing, CORPEX combines high-speed imaging with AI-based analytics to deliver precise measurement at line speed. The system continuously measures outside diameter, convolution pitch, and product length while maintaining exceptional accuracy and consistency. Logged measurement data supports traceability, trend analysis, and continuous improvement.

Production Insights & Reporting

Trends and reports reduce variation, improve first-pass yield, and prevent repeat defects. Data is stored for audits and troubleshooting.

Integration & Automation

Connect directly to PLC, SCADA, MES, and OPC environments for automated alarms, reporting, and process monitoring.

Operator-Friendly Interface

The touchscreen HMI shows live alarms and trends so operators respond fast and maintain quality without slowing production.

Advanced Vision & AI Detection

High-resolution sensors and AI detect dimensional variation early, reducing scrap and improving consistency for demanding specifications.

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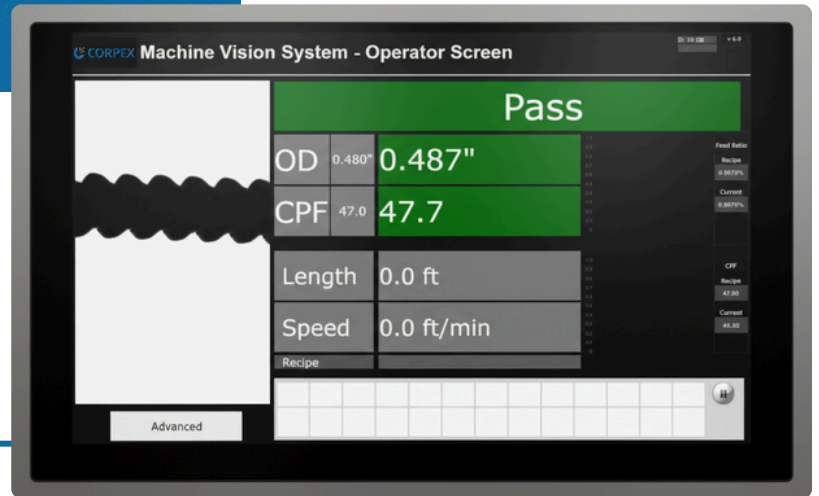
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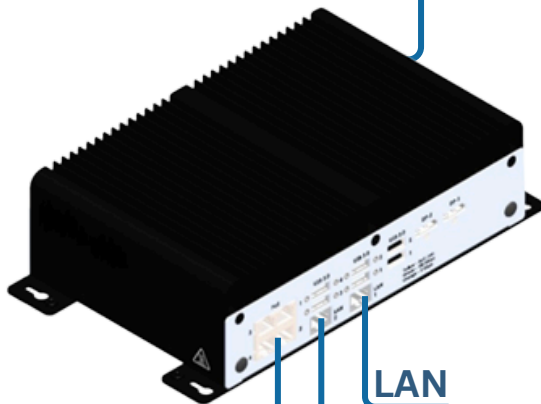7111 Syntex Dr Suite 100, Mississauga, ON L5N 8C3

CORPEX

Machine Vision System
CMVS-35

- User-friendly HMI screen displaying live measurements: OD, CPF, length, and speed
- Real-time monitoring for operators to quickly assess product quality
- Advanced engineer screens for parameter adjustments and setup
- Supports tolerance and recipe changes to match different products

DP/HDMI

Machine Vision System - Operator Screen

Pass

| OD | 0.480" | 0.487" |
| CPF | 47.0 | 47.7 |

| Length | 0.0 ft |
| Speed | 0.0 ft/min |

Recipe

Advanced

Feed Ratio
Recipe
0.9073%
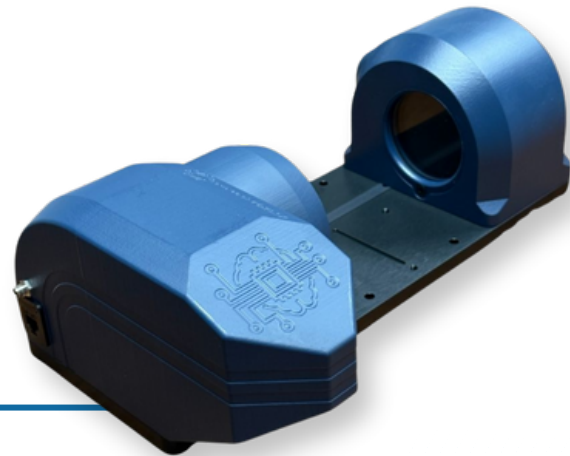Current
0.9070%

CPF
Recipe
47.00
Current
46.80

- Industrial machine vision computer running all vision and logic processing
- LAN and PoE connectivity for cameras and network integration
- Display and USB ports for screens, setup, and data access
- 24 VDC powered and running the machine vision and AI software stack
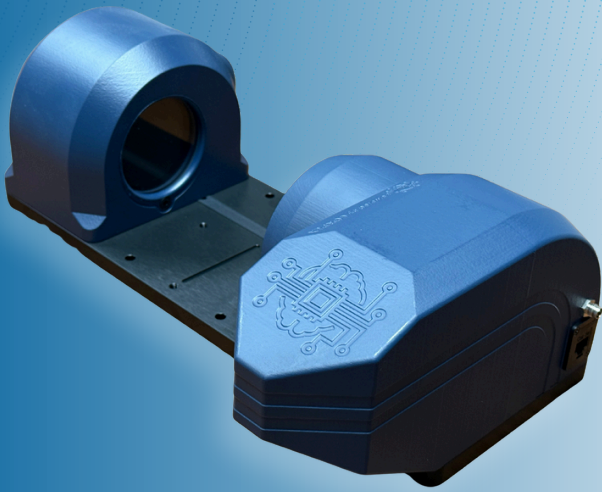
LAN

PLC

COMM

- Machine vision sensor head for armored cables up to 35 mm (1.35 in) OD
- High accuracy: ±0.001 in (±0.0254 mm) measurements
- Supports quality specs while reducing waste and inspection time
- 24 VDC powered

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CORPEX

Specification	Description	
Dimensions (H x W x D)	5.16 x 9.45 x 15.75 inches	131 x 240 x 400 mm
Input Power	24V DC – M8 3 pin Connector Female	
Operating Temperature	32°F to 122°F	0°C to 50°C
Communication	1x Ethernet	
Operation	Integrated HMI	
Measurements	Operator and supervisor screen measurements given in imperial	
Target OD range	0.15–1.35 inches	4 – 35 mm
Accuracy	±0.001 in @ 80 ft/min	±0.0254 mm @ 25 m/min
Max pitch	0.65 in (18 CPF)	16.5 mm (59 CPM)
Smart light	Flexible mounting	

CMVS 35

Compact system for
OD up to 35 mm (1.35")
with real-time pitch measurement
on armored and convoluted cable lines.
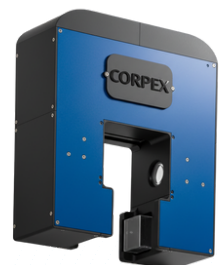
Product Range

CMVS 55

Expanded range for
OD up to 55 mm (2.2")
high-speed monitoring for demanding
armoring and convolution production.

CMVS 100

Industrial solution for
OD up to 100 mm (4")
built for high-volume production
with stable measurement and reporting.

CMVS 125

Heavy-duty system for
OD up to 125 mm (5")
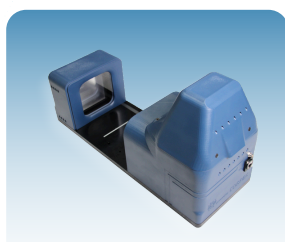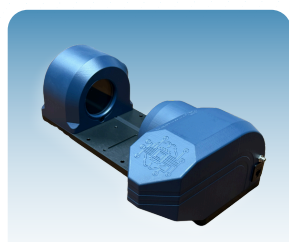for larger cable sizes with continuous
operation and full traceability.

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CORPEX

Sensor Head Specifications

Specification	CMVS 35		CMVS 55		CMVS 100		CMVS 125	
Dimensions (H x W x D)	5.16 x 9.45 x 15.75 inches	131 x 240 x 400 mm	10.75 x 7.48 x 21.26 inches	273 x 190 x 540 mm	22.1 x 19.9 x 7.1 inches	561 x 505 x 108 mm	22.1 x 19.9 x 7.1 inches	561 x 505 x 108 mm
Input Power	24V DC – M8 3 pin Connector Female		24V DC – M8 3 pin Connector Female		24V DC – EVC811 4 pin Connector Female		24V DC – EVC811 4 pin Connector Female	
Operating Temperature	32°F to 122°F	0°C to 50°C	32°F to 122°F	0°C to 50°C	32°F to 122°F	0°C to 50°C	32°F to 122°F	0°C to 50°C
Communication	1x Ethernet		1x Ethernet		4x Ethernet		4x Ethernet	
Operation	Integrated HMI		Integrated HMI		Integrated HMI		Integrated HMI	
Measurements	Operator and supervisor screen measurements given in imperial		Operator and supervisor screen measurements given in imperial		Operator and supervisor screen measurements given in imperial		Operator and supervisor screen measurements given in imperial	
Target OD range	0.15–1.35 inches	4 – 35 mm	0.25–2.2 inches	6–55 mm	0.25–4 inches	6 – 100 mm	0.25–5 inches	6 – 125 mm
Accuracy	±0.001 in @ 80 ft/min	±0.0254 mm @ 25 m/min	±0.002 in @ 80 ft/min	±0.05 mm @ 25 m/min	±0.002 in @ 80 ft/min	±0.05 mm @ 25 m/min	±0.002 in @ 80 ft/min	±0.05 mm @ 25 m/min
Max pitch	0.65 in (18 CPF)	16.5 mm (59 CPM)	0.75 in (16 CPF)	19 mm (52 CPM)	0.75 in (16 CPF)	19 mm (52 CPM)	0.75 in (16 CPF)	19 mm (52 CPM)
Smart light	Flexible mounting		Flexible mounting		Optional		Optional	

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