



# GERMAN PRECISION ENGINEERING PROUDLY PRODUCED IN THE USA.



The Lapp Group North American headquarters, located in Florham Park, NJ, houses Lapp USA, Lapp Cable Works and our latest expansion, Lapp Group's Center for Competence and Innovation. This center is assessed by UL as a Client Test Data Program (CTDP) laboratory for Product Testing, R&D, Quality Validation and New Product Innovation. Lapp Cable Works is our state-of-the-art cable manufacturing plant for ÖLFLEX® brand quality products and custom designed cables. In addition, this facility houses Lapp Systems, which provides complex harnesses, integrated solutions and custom cable assemblies.



### 2600 PEOPLE, 21 LANGUAGES 1 WORLDWIDE FAMILY

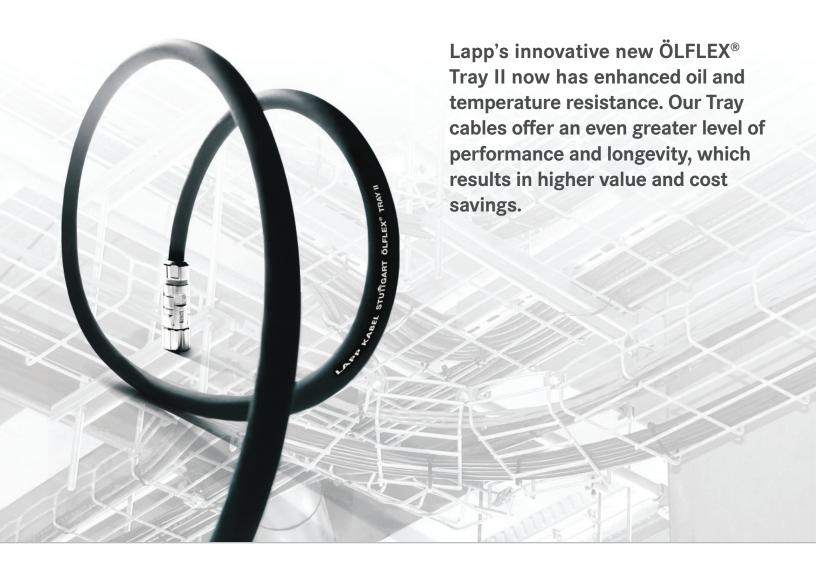
In the late 1950's, Oskar Lapp turned his visionary dream into reality with the invention of the first industrially manufactured control cable, ÖLFLEX®.

This was the beginning of his family run and oriented company. Lapp Group produces innovative cables, connectors, accessories, and engineered solutions as a worldwide market leader. Oskar Lapp's vision continues today through his wife, Ursula Ida, and his sons, Andreas and Siegbert Lapp.

Within 50 years, the Lapp Group has grown to 2,600 employees operating around the globe developing, manufacturing and selling more than 40,000 products. With 17 manufacturing sites, 39 company-owned sales operations, more than 100 foreign representations and worldwide headquarters in Stuttgart, Germany, the Lapp Group people are everywhere you need us to be.



# JUST WHEN YOU THOUGHT OUR CABLES COULDN'T GET ANY BETTER, THEY HAVE.



# FIFTY YEARS AS A MARKET LEADER IS JUST THE BEGINNING OF OUR STORY

The Lapp Group is proud to celebrate the 50th anniversary of its signature cable brand - ÖLFLEX®, and decades of delivering innovative, quality, cost-effective solutions.

And while our industry-leading company has enjoyed tremendous growth and success, our mission remains rooted in founder Oskar Lapp's original vision – to be a family-run, family-oriented company that provides its valued customers with superior products and unsurpassed value.



# ONE INSTALL AND YOU'LL UNDERSTAND

THE ÖLFLEX® TRAY II ADVANTAGE



### UNRIVALED OIL RESISTANCE

Meets UL Oil Res I & II Perfect for Industrial Areas Where Cables Face Oil Exposure **Longer Cable Life Results** in Increased Productivity



### **EXCELLENT FLEXIBILITY IN EXTREME COLD**

Passes UL Cold Bend at -40°C & UL Cold Impact at -25°C

Superior New Alternative for Colder Facilities and in Colder Climates

The High Tech PVC Blend is More Cost Effective Than Rubber & Polyurethane Compounds



### **NEWLY DESIGNED MATERIAL IMPROVES CABLE PERFORMANCE**

Jacket Offers Greater Abrasion & Scuff Resistance **Even Greater Flexibility** 

**Enhanced Strength and Resilience Properties** 



LAPP KABEL STUTTGART ÖLFLEX TRAY II

# **ÖLFLEX® TRAY II IFLEX® TRAY II CY**

### FLEXIBLE & OIL RESISTANT TRAY CABLE FOR INDUSTRIAL APPLICATIONS

### **APPROVALS**

UL:

- UL Type TC-ER (Exposed Run) per UL1277
- UL AWM, Oil Res I & II, Wet Rating 75°C
- UL MTW, NFPA 79 2007
- UL -40°C Cold Bend & -25°C Cold Impact
- UL Wet Rating UL 83
- Class 1, Div. 2 per NEC Art. 336, 392, 501
- UL WTTC (Wind Turbine Tray Cable) 1000V per UL 2277

CSA:

- c(UL) Type TC and CIC FT4

- CSA-AWM I/II A/B FT4

#### Additional:

MSHA: P07-KA050016-MSHA (Shielded Only)

### **HIGHLY RESISTANT** TO OILS AND **COOLANTS**

### UL OIL RES I/CSA C22.2 No. 230

In oil for 4 days at 100°C 50% Unaged Tensile Strength 50% Unaged Elongation

#### **UL OIL RES II**

In oil for 60 days at 75°C 65% Unaged Tensile Strength 65% Unaged Elongation

### UL AWM 21098/CSA C22.2 No. 30

In oil for 60 days at 80°C 65% Unaged Tensile Strength 65% Unaged Elongation











### TESTED TO SEVERE PARAMETERS

#### **CRUSH IMPACT PER UL 1277**

TC-ER	UL Type TC-ER: 600V 2011 NEC Article 336.10 (7)
COLD BEND	UL 444, UL 1581, CSA 22.2 No. 0.3, CSA 22.2 No. 75
COLD IMPACT	UL 1581, CSA 22.2 No. 75 -25°C (CSA-TC)

EL STUTTGART ÖLF

INTEGART OLFLEX

\*Industrial standards set by Lapp Group. For more details see our cable attribute charts at www.lappusa.com or in Lapp's full line catalog.

### **AVAILABLE SIZES**

AWG / mm² *	CONDUCTOR COUNT								
18 AWG / 1.0 mm <sup>2</sup>	3	4	5	7	9	12	18	25	
16 AWG / 1.5 mm <sup>2</sup>	3	4	5	7	8	9	12	18   25   41   50   6 <sup>-</sup>	
14 AWG / 2.5 mm <sup>2</sup>	3	4	5	7	9	12	18	25	
12 AWG / 4.0 mm <sup>2</sup>	4	5	7	•••••	•••••		•••••	•••••••••••••••••••••••••••••••••••••••	
10 AWG / 6.0 mm <sup>2</sup>	4	5	7	•••••	•••••			••••••••	
8 AWG / 10.0 mm <sup>2</sup>	4	5						•	
6 AWG / 16.0 mm <sup>2</sup>	3	4							
4 AWG / 21.0 mm <sup>2</sup>	3	4							
2 AWG/ 33.7 mm <sup>2</sup>	3	4							
1 AWG/ 42.3 mm <sup>2</sup>	4								
1/0 AWG/ 52.9 mm <sup>2</sup>	4								
2/0 AWG/ 67.3 mm <sup>2</sup>	4								
3/0 AWG/ 84.8 mm <sup>2</sup>	4		•••••		••••			•••••••••••••••••••••••••••••••••••••••	
4/0 AWG/ 106.7 mm <sup>2</sup>	4	•••••	•••••	•••••	•••••			•••••••	
250 KCMIL/ 128.4mm <sup>2</sup>	4			•••••	•••••			••••••••••	
350 KCMIL/ 181.9 mm <sup>2</sup>	4		•••••	•••••	•••••		•••••	•••••••••••••••••••••••••••••••••••••••	
500 KCMIL/ 257.6 mm <sup>2</sup>	4								

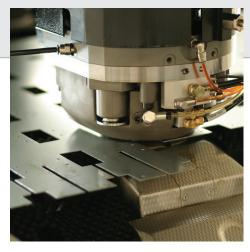
Part Number creation: 22XXYY; XX=AWG size, YY=conductor count. Add 0 at the end for shielded version.



<sup>\* 18-6</sup> AWG comply with both UL & VDE Class 5 requirements. Improving electrical performance and safety in a global market.

### **APPLICATION ADVANTAGES**

# ÖLFLEX® TRAY II / TRAY II CY CABLES: HIGH PERFORMANCE SOLUTIONS FOR DEMANDING ENVIRONMENTS





**Enhanced Oil Performance** 

ÖLFLEX® Tray cables offer unrivaled reliability, flexibility and durability for machine tool applications.

- Higher abrasion resistance
- Meets UL Oil Res I & II and AWM 21098
- Superior flexibility
- UL MTW meeting NFPA 79 2007



INDUSTRIAL MACHINERY

Versatile For All Environments

ÖLFLEX® Tray cables provide a level of high performance and flexibility for complex manufacturing environments.

- UL -25°C cold impact
- Improved oil and chemical resistance
- UL/CSA tray rated
- OLFLEX® Tray II a cost-effective performer



FOOD & BEVERAGE

### Known & Trusted Industry Performer

ÖLFLEX® Tray cables are designed to exceed expectations in the food & beverage industry.

- UL/CSA tray rated
- Robust jacket for washdown environments
- High flexibility in refrigeration
- Round and flexible for easy tray loading and stacking





### Doesn't Lose It's Cool In The Cold

ÖLFLEX® Tray cables are the best in class in the cold to deliver a high level of performance and flexibility.

- Flexible down to -25°C
- Excellent in extreme environments
- UL -40°C cold bend
- Cost effective solution vs. rubber



PLANT EXPANSIONS

### Lower Installation Costs

Due to their extreme flexibility and easier routing, ÖLFLEX® Tray cables are optimal for new plant development and plant expansions.

- Pull more cables at a time.
- Less drag when routing through the tray
- UL TC-ER: no conduit required
- All of this leads to labor savings



WIND ENERGY

### Reliability For All Climates

ÖLFLEX® Tray cables are expertly designed to withstand humidity, vibration, extreme temperatures, and exposure to oil.

- Withstand gear box oil
- Torsion tested for the wind turbine market
- UL WTTC, 1000 V, FT 4 for the tower
- Durable all season performance







# **SKINTOP®**

Cable Glands

# **SILVYN**<sup>®</sup>

Conduit

# **ETHERLINE**®

Industrial Ethernet

# **EPIC**®

**Connectors** 

# **UNITRONIC**<sup>®</sup>

**Data Cables** 

# **FLEXIMARK**®

**Marking Systems** 

## **HITRONIC**<sup>®</sup>

**Fiber Optic Cables** 



#### LAPP USA

29 Hanover Road Florham Park, NJ 07932 800-774-3539 www.lappusa.com

#### LAPP CANADA

3505 Laird Road, Unit 10 Mississauga, Ontario L5L 5Y7 877-799-5277 www.lappcanada.com

#### **LAPP MEXICO**

Metalurgia 2730 Alamo Industrial, C.P. 44490 Tlaquepaque, Jalisco 800-024-5277 www.lappmexico.com