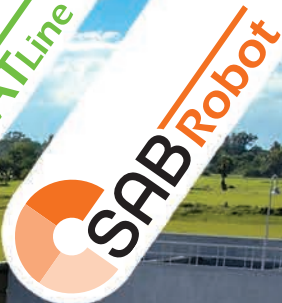
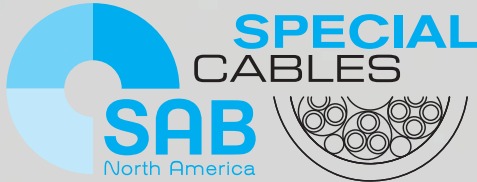


CABLES & ACCESSORIES FOR WASTE MANAGEMENT



www.sabcable.com
866-722-2974 ■ info@sabcable.com



Cables & Accessories for Waste Management

About Us



SAB North America is a focused supplier for the automation, aerospace, food and beverage, waste management, high temperature, and robotics industries, providing cable and thermocouple solutions that meet, exceed, and set new standards in the flexible cable market. In addition to flexible cable products, we offer an extensive inventory of high-quality cable accessories, including cord grips, grounding glands and other accessories that complement our flexible control and automation cables.

Whatever the need may be, look to SAB North America for Special Cables that can, for example, help minimize maintenance costs and increase productivity, reduce downtime, and solve specific problems. Here is a small sample of some of the challenges that Special Cables from SAB North America can help address:

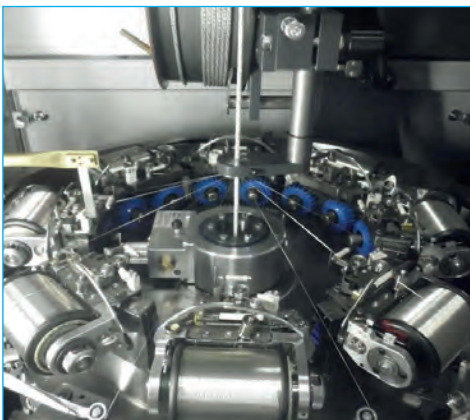
- Hybrid designs for multiple functions
- Harsh environments
- Difficult applications
- Industry-specific requirements



Equipment OEMs must have complete certainty that the cables they choose are suitable for their design. SAB North America provides a wide variety of safe, reliable flexible, continuous flex, or torsional cables for use in waste management equipment. It doesn't matter if you are looking for compensating and extension cables for waste, gas heat exchangers, or high temperature systems, festoon cables for conveyor belts or waste incineration plants, reeling cables for crane applications, or Besilen® silicone cables for sorting plants, SAB has a solution. Along with our cables, SAB's temperature measurement product range includes mineral insulated thermocouples, plug connectors or temperature sensors for use in waste incineration plants and compost works.

Whether you're a valued distribution partner, an automation house, an integrator, or a contractor to the waste management industry, rest assured that our cables are reliable to maximize production efficiencies. SAB brings world class performance & 75 years of ingenuity to the table.

SAB's level of speed and service as a supplier is unmatched.



SAB Advantage...We make it Easy

- Engineering & technical assistance
- Cut to length with no cut charges
- Prepaid freight within US for orders over \$2,500
- Specialty cable designs (1500 ft minimum)
- No minimum on orders from stock
- Free drop shipments (no surcharges)
- 24-hour shipments from stock
- Cord Grips for securing and grounding cables

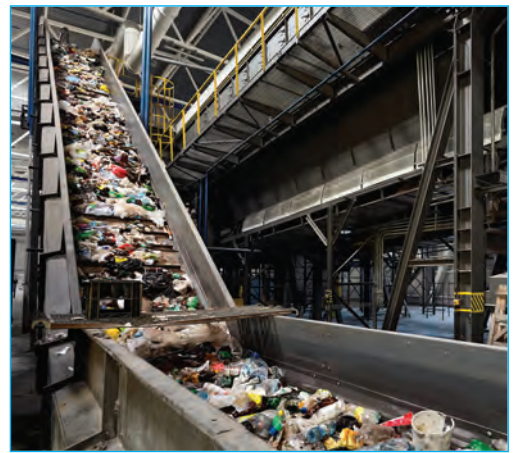
Cables & Accessories for Waste Management

For a Variety of Applications

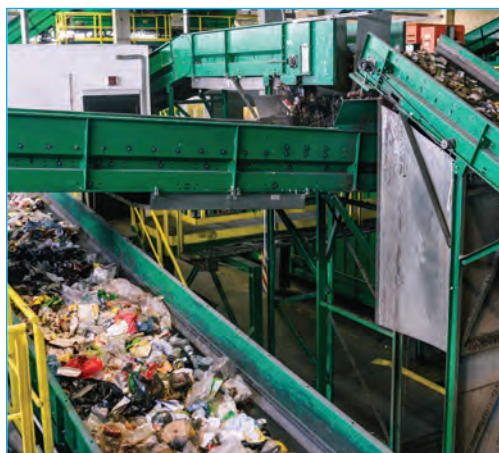
Waste Water



Recycling



Waste Disposal (Sorting/Automation/Incineration)

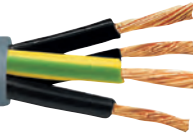


Cables & Accessories for Waste Management

FLEXIBLE POWER & CONTROL CABLES

Applications Include: Pump Motor, Electrical Panels, Conveyor Systems, Fan Motors, Lighting, and Processing Equipment.

600V CSA AWM I/II A/B 90°C F 600V FT1 FT2 CE



Waste Water
Recycling
Waste Disposal



Features:

- Flexible for easy installation
- Flexible stranding
- Oil resistant jacket
- NFPA 79 compliant
- Abrasion and notch resistant
- Easy to strip conductors

Suggested Cables:

- CC 600 & CC 600 CY (UR/CSA/CE) - Flexible, Unshielded & Braid Shielded, Oil Resistant PVC Control Cable
- CC 600 P & CC 600 CP (UR/CSA/CE) - Flexible, Unshielded & Braid Shielded, Notch Resistant PUR Control Cable



CONTINUOUS FLEX CABLES

Applications Include: Cable Tracks, Continuous Flex Sorters, Automated Robots, High Speed Packaging Lines, and UV Applications for Municipal Wastewater

CSA AWM I/II A/B 90°C 600V FT1 FT2 CE



Waste Water
Recycling
Waste Disposal



D-VIERSEN · S 200 12 x 1.5 mm² CE



Features:

- Applications requiring alternate bending or continuous motion
- Small outer diameter
- Small bending radius
- Flexible at low temperature

Suggested Cables:

- S 960 & S 960 CY (UR/CSA/CE) - Unshielded & Braid Shielded, Oil Resistant PVC Cable
- S 200 & S 200 C (CE) - TPE/PUR Unshielded & Braid Shielded Cable, Extreme Temperatures, & Tight Bending Radius
- S 980 P & S 980 CP (UR/CSA/CE) - Unshielded & Braid Shielded, Oil Resistant PUR Cable
- S 900 & S 900 P (UR/VDE/CE) - PVC & PUR Single Conductor, Tight Bend Radius for Confined Areas



Cables & Accessories for Waste Management

FLEXIBLE TRAY CABLES

Applications Include: Waste Robotics Integration, Waste Handling Processes, Balers, Sorters, Pump Motors, Industrial Shredders, Conveyor Systems and Control Systems.

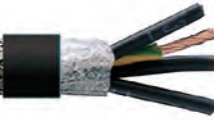
FT4 OR AWM I/II A/B 90C 1000V FT4 RoHS CE



Waste Water
Recycling
Waste Disposal



AWM I/II A/B 90C 1000V FT4 RoHS CE



Features

- Flexible for easier installation
- Oil resistant meeting UL Oil Res I and II
- Submersible pump (14 AWG ≥ 3 thru 7 cond.)
- Sunlight resistance
- UL TC-ER for exposed runs
- NFPA 79 compliant

Suggested Cables:

- TR 600 S & TR 600 S CY (UL TC-ER/CSA-TC/CE) - UV & Oil Resistant Flexible Cable, Shielded & Unshielded



FLEXIBLE VFD CABLES

Applications Include: VFD Drive to Control Pump Motors, Pump Stations, and Aeration Turbine.

CSA AWM I/II A/B 90C 1000V FT4 RoHS CE



Waste Water
Recycling
Waste Disposal



Features:

- Flexible tinned copper strands, class K
- Engineered to suppress the noise issues associated with VFD drives
- XLPE insulation offers improved capacitance for longer installations
- Oil Res I & II
- NFPA 79 compliant
- Heavy-duty jacket for harsh environments

Suggested Cables:

- VFD XLPE TR (UL/CSA/CE) - 4c Power with Overall Shield
- VFD Combo XLPE (UL/CSA/CE) - 4c Power Plus Shielded Pair for Brake or Sensor
- VFD XLPE Auto TR (UL/CSA/CE) - 4c Power with Overall Shield for Continuous Flexing
- VFD XLPE Lean (UL/CSA/CE) - 4c Power with Overall Shield with Reduced Diameter



Cables & Accessories for Waste Management

FESTOON & REELING CABLES

Applications Include: Transport Systems, Overhead Cranes, Festoon Systems, Pendant & Reeling Systems, Conveyor Belts, Waste Incinerating Plants, Water Treatment Plants.

D-VIERSEN · Festoon 715 P 18 G 2.5 mm² CE



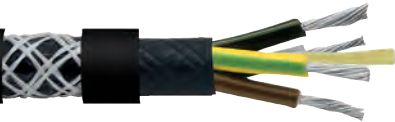
Waste Water
Recycling
Waste Disposal



<VDE> <HAR> H07VVH6-F 12G1.5 mm² CE



717 P Highflex 4 G 2.5 mm² CE



Features:

- Flexible stranding Class 5
- Continuous flex
- Oil resistance
- Flame retardant

Suggested Cables:

- H05VVH6-F (VDE/HAR/CE)- Flat festoon cable with black numbered cores, 500 V, 70°C, CE
- H07VVH6-F (VDE/HAR/CE)- Flat festoon cable with black numbered cores, 750 V, 70°C, CE
- Festoon 715 P (CE)- PUR cable for flexible application in festoon systems
- Festoon 716 CP (CE)- PUR cable with overall copper screen for flexible application in festoon systems
- DR 730 P Highflex (UR/CE)- PUR cable used for heavy reeling applications



TORSIONAL CABLES

Applications Include: Robotics Sorters, Balers, Robotic Palletizing, Material Handling

80°C 600V CSA AWM I/II A/B 80°C 600V FT1 FT2 CE



Waste Water
Recycling
Waste Disposal



Features:

- Designed for torsional movement up to $\pm 450^\circ/0.5$ m (tested)
- Conductor bare copper flexible strands class 6
- Chemical resistance: good against acids, alkaline, solvents, hydraulic liquids, etc.

Suggested Cables:

- RT 123 (UR/CSA/CE) - TPE/PUR Torsional and Continuous Flex Cable for $\pm 450^\circ / 1/2$ m Available Shielded and Unshielded



Cables & Accessories for Waste Management

DATA & SENSOR CABLES

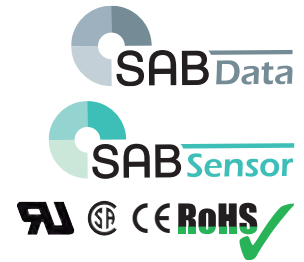
Applications Include: Signal Lights, Stop Switches, and Instrumentation

CSA TYPE CMG or AWM I/II A/B 105°C 300V FT4



Waste Water
Recycling
Waste Disposal

D-VIERSEN · LIYY 32x0.25mm² CE



Features:

- 26 AWG to 16 AWG data/communication cables
- good EMC characteristics
- Small outer diameter
- Small bending radius

Suggested Cables:

- DC 105, DC 105 C, & DC 105 TP (UL PLTC, ITC, CMG)(CSA/CE)- Flexible Multi-Conductor & Paired Cable, Shielded & Unshielded, PVC
- DC 300 DS & DC 300 TP (UR/CSA) - Flexible Multi-Conductor & Paired Cable, Shielded & Unshielded, PVC
- LiYY, LiYCY, & LiYCY TP (VDE/CE) - General Purpose, Multi-Conductor and Twisted Pair, Shielded & Unshielded, PVC



FLEXIBLE INDUSTRIAL BUS & ETHERNET CABLES

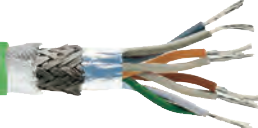
Depending on the application we are able to offer today Industrial Ethernet Cables CAT 5, CAT 6 and CAT 7 cables for flexible, continuous flexible and thermal stress and as reeling and USB for robot cables as special construction.

D-VIERSEN · S PB 634 2x0.34mm² CE



Waste Water
Recycling
Waste Disposal

°C 300V CSA AWM I/II A/B 80°C 300V FT2 CE



601-0222 AWM Style 2655 80°C 300V CE



Features:

- Available with PLTC rating for use in tray
- CATLine is available for continuous flex & torsion/robotic applications
- Resistance to extreme temperatures.
- CAT 5e, CAT 6, CAT 6A, or CAT 7A
- USB 2.0 and 3.0 versions also available.
- Profinet: Type A, B, & C

Suggested Cables:

- Profinet/CAT5 Cables for Type A, B, & C Applications Plus Torsion and Reeling (UL/CSA)
- DeviceNet™ Cables for Flexible, Continuous Flex, and Torsion Applications (UL/CSA)
- Profibus Cables for Flexible, Continuous Flex, Torsion, and Outdoor Applications. Halogen-Free (UL/CSA)
- CATLine 5e, 6, 6A, 7A Cables for Continuous Flex, Torsion, Reeling, and High Temperature Applications (UL/CSA)



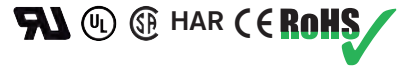
Cables & Accessories for Waste Management

EUROPEAN STANDARDIZED CABLES

Applications Include: Recommended for use in dry, humid or moist environments, Pump Motors, Lighting, and Fan Motors.



Waste Water
Recycling
Waste Disposal

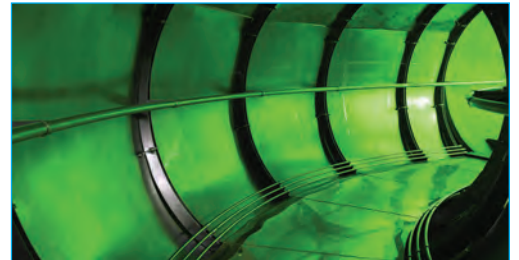


Features:

- Flexible for easier installation
- Can be routed around tight bends and fit into confined spaces
- Tri-rated hook-up wire
- Chemical resistant for washdowns
- Rubber Cordage per European Standards

Suggested Cables:

- H05V-K/MTW/TEW (UL/CSA/HAR/VDE/CE) - Harmonized 300/500 Volt Hook-Up Wire
- H07V-K/MTW/TEW (UL/CSA/HAR/VDE/CE) - Harmonized 450/750 Volt Hook-Up Wire
- H07RN-F (HAR/CE) - Harmonized 450/750 Volt Neoprene Heavy Duty Multi-Conductor Cable



FLEXIBLE HIGH TEMPERATURE CABLE

Applications Include: Glass Recycling Plants, Industrial Recycling Plants for Metals, Shredders, Grinders and Industrial Rubber Powderizers



Waste Water
Recycling
Waste Disposal



Features:

- Halogen-free
- Resist temperatures as low as -50°C
- UL/cUL recognized
- Resist high temperatures up to 180°C for continuous operation and up to 250°C for short periods.

Suggested Cables:

- SC 600 HDTR (UR/CSA/CE) - Heavy-Duty, Tear Resistant Silicone Multi-Conductor Cable, Shielded Available
- Besilen® - single conductor and jacketed cables with fiber-glass braiding and steel wire armoring
- ZKBi Besilen® - ignition cable gas torches
- BiAF/GL Besilen® - insulated strands with fiber-glass braiding
- BiHF-J Besilen® - insulated strands with Besilen® outer jacket
- BiHFP-J BiHF with steel wire armoring for mechanical protection



Cables & Accessories for Waste Management

FLEXIBLE SERVO CABLES

Applications Include: Robots for sorting, controls for water flow, and palletizers



Waste Water
Recycling
Waste Disposal



Features:

- Available in position or feedback versions with copper screen (0.6/1 kV or overall)
- Halogen-free versions
- Good chemical resistance
- Long operating life
- Suitable for use in cable tracks

Suggested Cables:

- SL 863 C (UR/CE) - Braid Shielded Servo Motor Cables for Stationary Applications, PVC
- SL 834 C (UR/CSA/CE) - Braid Shielded Servo Motor Cable for Continuous Flex, PUR
- SL 841 C (UR/CSA/CE) - Braid Shielded Composite Servo Motor Cable with Pairs for Continuous Flex, PUR
- SL 839 C & SL 843 C (UR/CE) - Braid Shielded Servo Motor Cables for Resolver/Encoder, PUR



COMPENSATION & EXTENSION CABLES

Applications Include: Waste gas heat exchangers, high temperature facilities



Waste Water
Recycling
Waste Disposal

Features:

- Heat resistant up to +250°C
- Besilen® insulated cables
- Fiber-glass braiding
- Steel wire armoring

Suggested Cables:

- A 11 LR, A 11-4 LR, A 11 DR - with fiber-glass braiding and steel wire armoring
- Available for Type T, Type K, Type J, Type L, Type N, Type E, Type R, Type S, Type B thermocouples



Cables & Accessories for Waste Management

CORD GRIP & ACCESSORIES

Secure & Protect your Cable

Liquid tight seal, fast and easy installation, wide clamping range, multi-purpose applications, easy handling.



Technical data:

Protection type:	IP 68 - 5 Bar NEMA 4X
Temperature range:	-20°C to +100°C intermittent: -30°C to +150°C
Flammability:	V2 (according to UL 94)

Waste Water

Recycling

Waste Disposal

CG 100 POLYAMIDE CORD GRIPS

Dome cap, black or gray available in NPT, PG, or metric thread

Liquid tight seal, fast and easy installation, wide clamping range, multi-purpose applications, easy handling.



CG 200 POLYAMIDE CORD GRIPS

Flex cap, black or gray available in NPT, PG, or metric thread

Strain relief gland offers maximum protection against conductor fatigue caused by flexing cables



CG 300 NICKEL PLATED BRASS CORD GRIPS

Available in NPT, PG, or metric thread

Impact resistant, suitable for industrial applications, water tight, corrosion resistant.



CG 350 STAINLESS STEEL CORD GRIPS

Available in NPT, PG, or metric thread and SS 303 or SS 316

Impact resistant, suitable for industrial applications, water tight, corrosion resistant.



EMC-2 GROUNDING CORD GRIPS

Nickel plated brass EMC cable gland available in NPT, PG, or metric thread

EMC-2 is a nickel plated brass strain relief with integral grounding springs in the gland.



Features:

- One Direction Installation
- Affordable
- Nickel Plated Brass with Tinned Copper Springs

EMC-4 GROUNDING CORD GRIPS

Nickel plated brass, EMC cable gland, vibration proof, available in NPT, PG, or metric thread

EMC-4 is a nickel plated brass strain relief with integral grounding springs in the gland that will allow the cable to move without damage to the shield.



Features:

- Bi-directional Installation
- Great Anti-Vibration Mechanisms
- Nickel Plated Brass with Tinned Copper Springs

Accessories & Fittings

Enlargers	Reducers	Hole Plugs	Multi-Hole Bushing	Vent Gland & Plugs	Locknuts

Cables & Accessories for Waste Management

Production possibilities

Flexible cables and wires “Made in Germany”

As a leading manufacturer we develop and produce cables for industrial purposes. Our wide range of materials offers a lot of possibilities for your individual product requirement. The following survey shows an extract of our production possibilities:

Conductor Materials:

- ✓ bare copper
- ✓ tinned copper
- ✓ silver plated copper
- ✓ nickel plated copper
- ✓ nickel
- ✓ nickel pure
- ✓ compensating cable alloys

Insulation and Jacketing Materials:

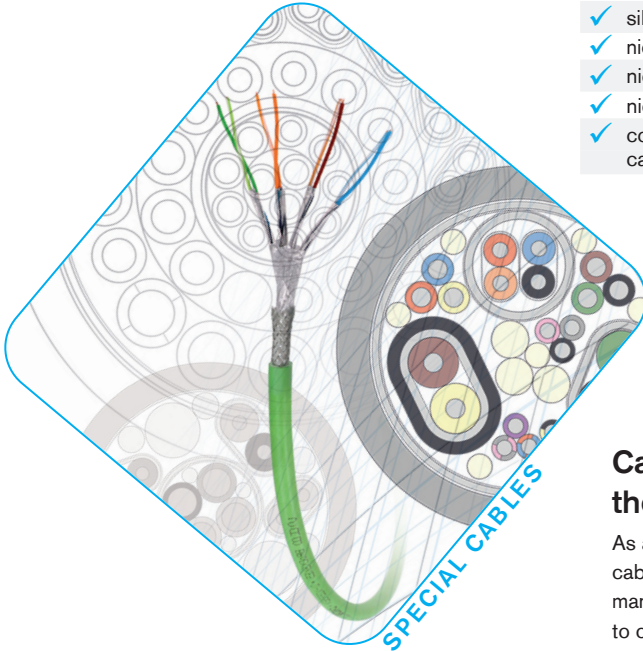
- ✓ PVC
- ✓ Polyethylene
- ✓ Polypropylene
- ✓ Polyurethane
- ✓ TPE
- ✓ SABIX® (zero halogen)
- ✓ Besilen® - Silicone
- ✓ FEP, ETFE, PFA, PTFE
- ✓ PI foil
- ✓ Fiberglass

Temperature Ranges:

- Thermoplastic Elastomers
- ✓ -50°C up to +145°C
- SABIX®
- ✓ -50°C up to +220°C
- Besilen® - Silicone
- ✓ -40°C up to +220°C
- FEP, ETFE, PFA
- ✓ -90°C up to +260°C
- Fiberglass
- ✓ up to +600°C

Conductors:

- ✓ cross sections 0.055 - 300 mm²
- ✓ unshielded and shielded over 100 conductors



Cable assemblies directly from the manufacturer SAB:

As a full service partner, we are able to offer cable design and production as well as the manufacturing of cable assemblies according to customer's request. Please trust on our experience for decades in the treatment of cables and connectors.

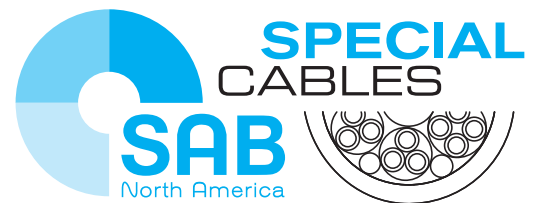
- ✓ cable assemblies according to customer's demands
- ✓ complete cable assemblies
- ✓ UL certified assemblies
- ✓ helix cables
- ✓ HV measuring assemblies



Measuring technology for industrial applications

Manufacturer of temperature sensors for industrial applications with 75 years of experience!

- ✓ mineral insulated thermocouples
- ✓ mineral insulated resistance thermometers
- ✓ temperature sensors
- ✓ mobile high voltage measuring technology
- ✓ temperature sensors for vehicle testing



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