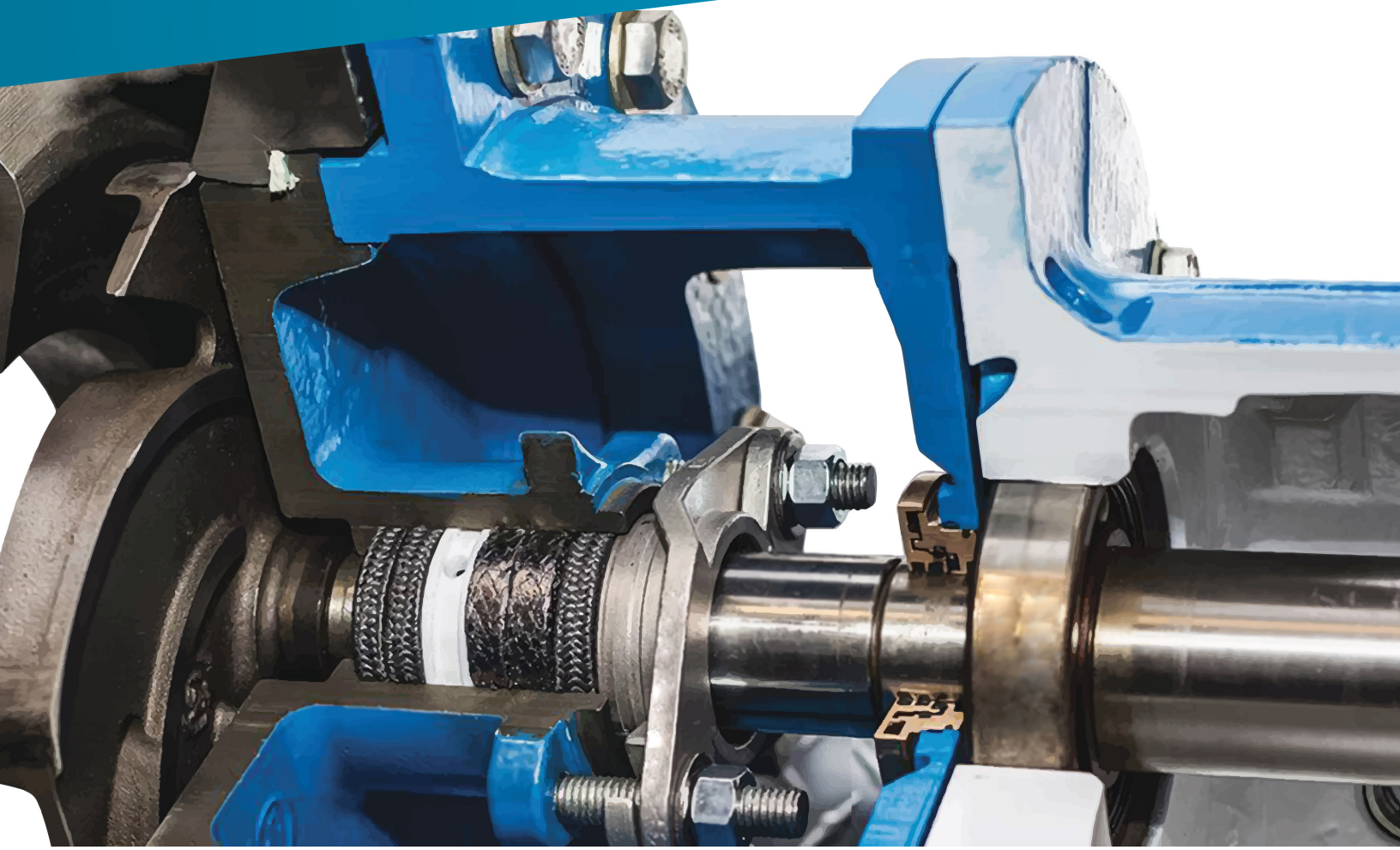
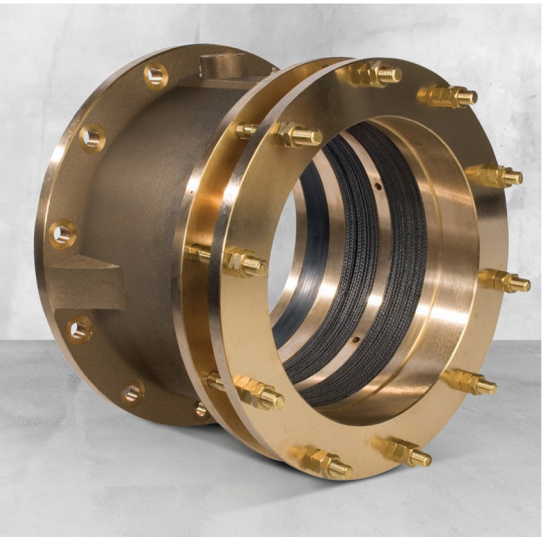
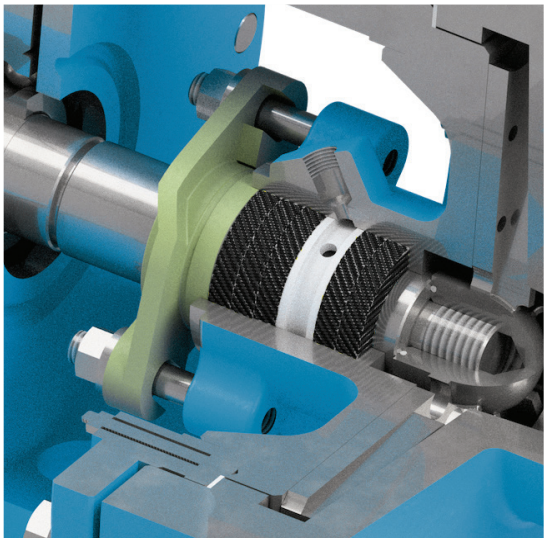
Specialists in Seals & Service

Hi-Tech Seals Inc.



Braided Packing Brochure





Braided Packing

Introduction

For over 30 years we have been recognized as a leader in the distribution and manufacturing of industrial seals, gaskets, and rubber and plastic solutions. We continually invest in new and innovative products, materials, and services with the intention of helping our customers grow and prosper in an ever-changing world economy.

We offer a personal solution to the business world, tailoring our business relationship to reflect the needs of our clients. We work alongside various industries while maintaining a high-quality standard for all our products and services. Our diverse supply chain allows our customers to be confident we will provide a solution that exceeds their needs.

We have always been, and will always be on the forefront of quality, with our Quality Management System (QMS). We are committed to providing the highest quality products to our customers and have been ISO registered for over 25 years.

Braided Packing

Braided packing, also referred to as compression or rope packing, is a highly versatile sealing solution for pumps, valves, agitators, and other rotary equipment. It delivers a cost-effective, long-lasting, and dependable leakage control system.

Once installed, the axial compression force generated by tightening the adjustable gland produces radial pressure against the sealing surface. Since the packing expands radially when compressed, gland tolerances and surface finishes can be more flexible than some other sealing and packing products.

Braided packing is available in numerous styles and materials to suit a wide array of application conditions. Hi-Tech Seals distributes braided packing based on weight, measured in pounds.

Key packing properties include:

- Great high pressure and vacuum capability
- Extreme temperature ranges
- Outstanding chemical resistance
- Less abrasive effect on mating surfaces
- Increased dimensional stability in ring or rope form
- Excellent sealing performance
- Good abrasion resistance

To request a quote, or learn more about braided packing, contact a Hi-Tech Seals professional. For customer looking for a more advanced solution, our mechanical seals can be used in place of braided without the housing needing to be retrofitted.

Braided Packing

	Style #		Description	Temp. Rating (°C (°F))	pH Rating	Speed Rating (FPM)	Pressure Rating (PSI)
PTFE	100B		Braided from 100% PTFE filament and impregnated with a PTFE suspensoidal blocking agent. 100B offers a long service life, good chemical resistance, minimal water absorption, and an extremely low coefficient of friction. 100B is recommended for static conditions and is ideal for chemical processing applications.	260 (500)	0 - 14	N/A	2000 (static)
	100BL		Braided from 100% PTFE filament and impregnated with a PTFE suspensoidal blocking agent and break in lubricant. 100BL is ideal for high-speed rotary shaft services. This soft, yet dense and stable pack-ing offers good chemical resistance and very low shaft friction. Can be used in reciprocating applications and various pump services.	260 (500)	0 - 14	1500	300
	100F		Manufactured from 100% PTFE yarn that complies with all FDA requirements. This packing is designed for use in the food and beverage, chemical, and pharmaceutical industries, or in critical applications where contamination is a concern.	260 (500)	0 - 14	1500	300
	100FL		Made from white hybrid PTFE yarn with a lubricant that complies with FDA requirements. 100FL offers extended service life and minimal shaft friction and scoring. High-speed PTFE packing for food service, pharmaceutical, pulp and paper, and chemical industries.	260 (500)	0 - 14	3000	300
	130L		Composed of lubricated PTFE and graphite filaments with self-lubricating properties. 130L offers low friction, high heat dissipation, and good chemical resistance. Suited for most general service rotating equipment applications.	288 (550)	0 - 14	4000	300 - Pump 2000 - Valve
	132L		Composed of PTFE and graphite filament yarn, encapsulated in a PTFE matrix; the matrix helps eliminate graphite migration, while the aramid reinforced corners increase abrasion resistance. Suited for valves, pumps, corrosive media, and abrasive environments.	260 (500)	2 - 12	2500	500
Aramid Fibre	210L		Composed from continuous aramid fibres thoroughly impregnated with PTFE and an inert lubricant. 210L packing provides high tensile strength and good abrasion resistance, while also offering excellent braid retention. This packing is nonstaining and non-contaminating with good dimensional stability and extrusion resistance. Ideal for various abrasive and slurry services where aggressive media is present.	260 (500)	2 - 12	2500	500
	221L		Manufactured from continuous Meta-aramid filament and impregnated with PTFE and an inert break in lubricant. 221L offers good heat dissipation and abrasion resistance. This packing is nonstain-ing, non-glazing, and non-contaminating. Suited for applications where low leakage and high durability packing is required, such as agitators, mixers, and stock pumps.	260 (500)	1 - 12	2000	300
Graphite	300		Manufactured from high purity graphite, 300 offers maximum sealability under gland pressure and is essentially leak free. 300 is a self-lubricating packing that offers low friction and good heat dissipation. Often used in high-temperature pump and valve applications.	*455 (850) **649 (1200) ***3315 (6000)	0 - 14	4000	500 - Pump 3000 - Valve

*Air **Steam ***Non-Oxidizing Atmosphere

Braided Packing

	Style #	Description	Temp. Rating (°C (°F))	pH Rating	Speed Rating (FPM)	Pressure Rating (PSI)
Graphite	307 	Made from expanded flexible graphite yarn and reinforced with high-strength carbon filaments. 307 is easy to install, durable, self-lubricating, and offers low leakage with increased extrusion resistance. This material blend allows for low shaft wear while maintaining excellent heat dissipation. Suited for high-temperature and high-pressure pump and valve applications.	*455 (850) **649 (1200) ***3315 (6000)	0 - 14	4000	500 - Pump 3000 - Valve
	377 	Composed of high purity expanded flexible graphite reinforced with high strength carbon filament. This material combination allows for low wear while maintaining good heat dissipation. 377 is highly durable, self-lubricating, and offers superior extrusion resistance. Often used in high-temperature, high-speed, and high-pressure applications.	*455 (850) **649 (1200) ***3315 (6000)	0 - 14	4800	500 - Pump 5000 - Valve
	310 	Made from high purity graphite with a PTFE dispersion. 310 packing is easy to install, offers good extrusion resistance, and is self-lubricating. The material combination allows for low wear and good durability, while maintaining good heat dissipation. Suited for almost all pump and valve applications.	288 (550)	0 - 14	4000	500
	310L 	Braided from high-quality graphite and PTFE filament yarn. A high-speed lubricant is added for quick break in and low friction during operation. 310L is easy to install, offers good extrusion, and chemical resistance. Suitable for valves, centrifugal pumps, high-speed rotary pumps, and reciprocating pumps.	288 (550)	0 - 14	4900	300
	312 	Braided using a combination of graphite and PTFE fibre filament yarn and aramid reinforced corners. This packing offers extrusion and abrasion resistance that is ideal for an extensive range of abrasive and chemical services. 312 maintains good dimensional stability in various valve and pump applications.	260 (500)	2 - 12	2500	500
	330 	Made from industrial grade graphite filament and coated with a graphite blend. 330 is an economical substitute for most carbon packings. It offers a low coefficient of friction and high thermal conductivity. Suited for application with aggressive media or high shaft speed. Ideal for valves, centrifugal pumps, rotary pumps, and reciprocating pumps.	*455 (850) **649 (1200) ***3315 (6000)	0 - 14	4000	500 - Pump 4000 - Valve
	330B 	A high-performance graphite packing that is impregnated with a blocking agent. 330B has a low coefficient of friction and high thermal conductivity. In addition, it offers good chemical resistance and dimensional stability. This packing can withstand extreme pressure and temperatures in environments with aggressive media. Suitable for agitators, pumps, valves, filters, and more.	*455 (850) **649 (1200) ***3315 (6000)	0 - 14	4000	500 - Pump 2500 - Valve
	330N 	Made from nuclear grade graphite filament and coated with a graphite blend. 330N is designed for nuclear applications, capable of withstanding extreme temperature and pressures while maintaining low friction. This style offers high thermal conductivity and fraying resistance when cut. Can be used in valves, centrifugal pumps, rotary pumps, and reciprocating pumps.	*455 (850) **649 (1200) ***3315 (6000)	0 - 14	4000	500 - Pump 4000 - Valve
	3X0 	Braided from 98% purity flexible graphite and Inconel® reinforced. Meets API 589/607 fire test standards. Offers reduced stem friction with high heat extrusion resistance.	*455 (850) **649 (1200) ***1093 (2000)	0 - 14	N/A	4500

*Air **Steam ***Non-Oxidizing Atmosphere

Braided Packing

	Style #		Description	Temp. Rating (°C (°F))	pH Rating	Speed Rating (FPM)	Pressure Rating (PSI)
Graphite	3X0IE		Composed of an Inconel® jacketed, 98% purity flexible graphite. Meets API 589/607 fire test standards and far surpasses API 622 standard for emission requirements. 3X0IE is a certified low leakage and ultra-low fugitive emission packing. With unique corrosion inhibitors, self-lubricating, and non-scoring qualities, it is a great solution for high-temperature and high-pressure valve services and Leak Detection and Repair (LDAR) programs.	*455 (850) **649 (1200) ***1093 (2000)	0 - 14	N/A	6500
	410		Composed of a 100% GFO™ fibre within a PTFE matrix to eliminate graphite migration. 410 offers a long service life with a low coefficient of friction. This packing has good water efficiency, thermal conductivity, and great chemical resistance. Suitable for mixers, agitators, valves, centrifugal pumps, rotary pumps, and reciprocating pumps.	288 (550)	0 - 14	4300	300 - Pump 2000 - Valve
Acrylic	510		Composed of acrylic blend that is impregnated with PTFE. 510 is a cost-effective, durable, general-purpose packing that possesses good chemical resistance and excellent dimensional stability. Designed to withstand a range of fluids in various temperatures, pressures, and speeds. Often used in centrifugal pumps, rotary pumps, and reciprocating pumps.	260 (500)	0 - 12	2200	500
	510L		Composed of an acrylic blended fibre impregnated with PTFE and an inert lubricant for extremely low friction. 510L is durable, non-staining, and non-contaminating. This packing provides good chemical resistance and offers great heat dissipation. Designed to withstand a range of fluids in various temperatures, pressures, and speeds. Often used in valves, centrifugal pumps, rotary pumps, and reciprocating pumps.	260 (500)	0 - 12	2500	500
	512L		Made from acrylic blended fibre and reinforced with durable aramid corners. 512L is impregnated with PTFE and a lubricant. This packing offers a long service life and excellent abrasion resistance. Ideal for applications with abrasive slurry in valves and pumps.	260 (500)	2 - 12	2200	500
	530L		Made from acrylic fibre; this packing is impregnated with graphite flakes and high-temperature lubricants. 530L is a cost-effective packing with low wear. This packing handles a wide range of fluids at various pressures and speeds. Used as a general service packing in steam, water, oil, and other mild environments.	260 (500)	4 - 10	1500	300
Phenolic	610L		610L is made from KYNOL™ filaments and is impregnated with PTFE and an inert break in lubricant. The phenolic fibres help reduce shaft wear and leakage. This packing is suitable for a range of purposes where durable packing is required.	260 (500)	1 - 13	2000	500
Carbon	700B		Composed of carbon yarn and impregnated with a blocking agent. 700B offers a good service life and the ability to maintain good heat dissipation. This packing has good chemical resistance, low shaft wear, and offers low abrasion. Ideal for pumps or valves in caustic or corrosive media and is suitable for almost any high-speed and high-temperature pump or valve application.	315 (600)	0 - 14	3000	500 - Pump 3600 - Valve
	730B		Composed of carbon yarn and impregnated with a blocking agent and high-purity graphite. 730B offers low shaft wear, low leakage, excellent heat dissipation, and good chemical resistance. Often used in caustic or corrosive environments and is suitable for almost any high-speed and high-temperature pump or valve application.	*455 (850) **649 (1200) ***3315 (6000)	0 - 14	4000	500 - Pump 4350 - Valve

*Air **Steam ***Non-Oxidizing Atmosphere

Braided Packing

	Style #		Description	Temp. Rating (°C (°F))	pH Rating	Speed Rating (FPM)	Pressure Rating (PSI)
Vegetable Fibre	800L		Braided from a long-lasting blend of flax and ramie fibres and thoroughly lubricated with a blend of tallow and wax. 800L packing provides an economical low friction solution for water pumps, stern tubes, and rudder posts. This packing offers good resistance to cold water, seawater, and cold oils. Often used in pulp and paper, marine, and wastewater markets.	104 (220)	5 - 9	1200	150
	810L		Composed of high-quality flax and ramie yarns which offer corrosion resistance, good braid retention, and long service life. 810L is impregnated with PTFE and an inert lubricant. Suited for most saltwater and freshwater applications.	121 (250)	5 - 9	1200	200
	830L		Braided from a blend of flax and ramie fibres, this packing is further enhanced with a tallow and wax blend lubricant and then coated with a high purity graphite to further reduce friction. 830L is resistant to cold water, seawater, and cold oils. Used in water pumps, rudder posts, marine applications, pulp and paper, and wastewater markets.	104 (220)	5 - 9	1200	150
Metallic	9A0L		Manufactured from aluminum alloy and lubricated with high viscosity light oil and high purity flake graphite. This packing is designed for services that require low friction and high-strength packing. Typically used in boiler feed pumps, heat transfer pumps, and oil charge pumps.	537 (1000)	4 - 10	2000	1000
	9A6L		High quality packing that is composed of aluminum alloy over a soft, high-temperature fibreglass core. 9A6L is lubricated with an oil and flake graphite blend for low friction. 9A6L is a high-strength, compressible packing that is available in coil form only. Often used in applications such as boiler pumps, heat transfer pumps, and oil charge pumps.	537 (1000)	4 - 10	2000	1000
	9C0		Made from soft annealed copper. This packing is dense yet flexible, which allows for easy installation. 9C0 is designed for use as an anti-extrusion ring.	816 (1500)	4 - 10	1000	1000
	9X6I		9X6I is composed of Inconel® wire inserted fibreglass wrapped over a core. The packing is further enhanced with corrosion inhibitors and a graphite blend coating. 9X6I is an economical solution compared to other more expensive steam packings. Used as a high-temperature and high-pressure valve stem or expansion joint packing.	649 (1200)	2 - 13	N/A	3000
	9L0L		Composed of an anti-friction lead alloy and impregnated with low friction lubricant, which reduces shaft wear and increases heat dissipation. 9L0L is great for high-pressure applications and for use as end rings or anti-extrusion rings. These qualities make it well suited for high-pressure boiler feeders, reciprocating pumps, and rotating pumps.	232 (450)	4 - 10	3600	1000
	9L6L		Composed from anti-friction lead alloy over a fibreglass core. The packing is impregnated with a low friction lubricant to help reduce shaft wear and increase heat dissipation. 9L6L is great for high-pressure applications and for use as end rings or anti-extrusion rings. These qualities make it well suited for high-pressure boiler feeders, reciprocating pumps, and rotating pumps.	232 (450)	4 - 10	3600	1000

Cross Reference Chart

Hi-Tech Seals	American Braiding	Chemstar	A.W. Chesterton	John Crane	Garlock	SEPCO	Teadit	UTEX
100B	344	154	324/1724	C1045	5888	ML2254	2005	232
100BL	344BIL	154-S	328/1728	C1050	5889	ML2235	2006/2006S	231
100F	344FDA	154FDA	1725	C1056	5904	ML2236	2006FDA	245
100FL	360	-	-	-	-	-	-	-
130L	8200BIL	165LA	1750	C1065	PM6	ML3600	2007	244
132L	8100BIL-K	-	1740	C1064	PM6K	ML8004	2017	214
210L	300	170	1740	K1730	5200/PM5	ML4800	2004	212/213
221L	310	2000	1730	-	1812	-	2030	-
300	5000	1100TCP	1400	-	1300	ML2001/ ML911	2000	686
307	5000C/CC	-	1400R	-	-	-	-	-
377	5000-OCC	-	-	G57	1333G	-	2202	687
310	5000T	-	-	-	-	-	-	688
310L	8100BIL	3165	1760	1070	PM6	ML8002	2007	210
312	8000T-K	165-K	-	-	5100K	ML4004	-	-
330	8000LC	160	1-2	1625G/1630G	-	-	2001	-
330B	8000G	-	375	-	200	ML4500	-	229
330N	8000	-	-	-	G-700	ML4444	-	-
3X0	5000I	1100I	-	-	1399	ML2001W	2001IC	689
3X0IE	5000IJ	-	-	-	-	-	-	-
410	8000T	165	-	-	5100	ML4002	-	-
510	3000N	-	-	1330	5861/8922NL/ PM1NL	ML2250	2008/2018	238
510L	3000T	1152/152	1722/412-W/ 1774/322	C-60/1335	5862/8922/PM1	2225/ML2225	2009/2019	237
512L	3000T-K	1152K	-	-	8921K	ML2225A	-	241
530L	3000G	1398/1430/398	1315	810/1340	234/8913/PM2	ML402	GA8/255/ 2255	236
610L	320	1190	1727	-	1850	ML2400	2777	248
700B	4000	50	1738	1655CF	5000/105/8968	ML4461	2012/2103	228
730B	4000G	90	370/477-1	1656G/ G58/1650CF	98/108	ML4460	2002	226
800L	921	528	80	863	18	2	2138	200
810L	345	525-T	329	867	5413	219	2421	201
830L	921G	531	81	866	90	2GR	2177	204
9A0L	8013	-	-	124	634	-	-	632
9A6L	8011	-	666	100AL	633	184	-	631
9C0	895	49	420	550	344	-	-	-
9X6I	3030INA	1414/414	1800/1500	187-1/287-I/387-I	127/127AFP	310/ML310	3981/2214	683
9L0L	8012	-	-	100M	632	-	-	610
9L6L	8010	-	555	110G	631	180	-	616

Canadian Branches

Canadian Headquarters | 9211 - 41 Ave NW | Edmonton, AB | T6E 6R5 | Ph: 780.438.6055 | Fax: 780.434.5866

Manufacturing Centre | 9504 - 41 Ave NW | Edmonton, AB | T6E 6G9 | Ph: 780.439.4894 | Fax: 780.436.9502

Calgary | 6323 - 35 St. S.E. | Calgary, AB | T2C 1N1 | Ph: 403.720.2856 | Fax: 403.279.2662

Winnipeg | 445 Egesz St. | Winnipeg, MB | R2R 2V5 | Ph: 204.775.7881 | Fax: 204.775.7954

Toronto | 1180 Kerrisdale Blvd; Unit #8 | Newmarket, ON | L3Y 8Z9 | Ph: 905.953.9666 | Fax: 905.953.8739

Montreal | 2101 Rue Léonard-De Vinci | Ste-Julie, QC | J3E 1Z2 | Ph: 450.655.7325 | Fax: 450.655.7359

US Branches

Conroe | 12064 FM 3083 | Conroe, TX | 77301 | Ph: 936.206.3124 | Fax: 936.756.0538

Broussard | 909 Garber Rd | Broussard, LA | 70518 | Ph: 337.347.8870 | Fax: 337.347.8871

A Proud Strategic Partner of Carco Group

CARCO-PRP | Via Ugo Foscolo, 2/4 | Basiano, MI | Italy | 20060 | Ph: +39.0295760331

Polymer Concepts Technologies PBY, Inc. | 13522 Manhasset St. | Apple Valley, CA | United States | 92308 | Ph: 760.240.4999

Polymer Concepts Technologies PBY, Inc. | 2571 E. Lindsay Privado | Ontario, CA | United States | 91761 | Ph: 909.930.6700

Microflex Technologies, Inc. | 430 W Collins Ave | Orange, CA | United States | 92867 | Ph: 714.937.1507

Polis SRL | Via Artigianale, 19 | Loc. Cignano Offlaga, BS | Italy | 25020 | Ph: +39.030979304

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