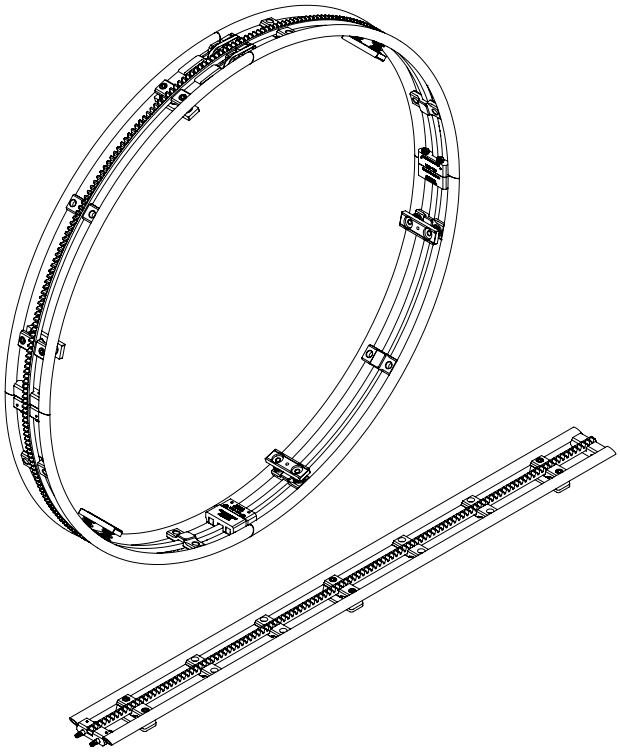
Operator's Manual

HELIX® TRACK

ORIGINAL INSTRUCTIONS



For use with Product Numbers: K52000-XX
K52083-XX
K52090-1
K52218-XX

GENUINE LINCOLN PARTS™

Register your machine:
www.lincolnelectric.com/register

Authorized Service and Distributor Locator:
www.lincolnelectric.com/locator

Save for future reference

Date Purchased

Code: (ex: 12675)

Serial: (ex: U1060512345)

Need Help? In the USA and Canada, call 1.800.770.0063 to talk to a Service Representative.

Hours of Operation:
7:00 AM to 5:00 PM (PT) Mon. thru Fri.

After hours?
Use "Ask the Experts" at lincolnelectric.com
A Lincoln Service Representative will contact you no later than the following business day.

For Service outside the USA and Canada, please call 1.619.628.1022 or e-mail us at:
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IM10609 | Issue Date Apr-21

THANK YOU FOR SELECTING A QUALITY PRODUCT BY LINCOLN ELECTRIC.

PLEASE EXAMINE CARTON AND EQUIPMENT FOR DAMAGE IMMEDIATELY

When this equipment is shipped, title passes to the purchaser upon receipt by the carrier. Consequently, claims for material damaged in shipment must be made by the purchaser against the transportation company at the time the shipment is received.

SAFETY DEPENDS ON YOU

Lincoln arc welding and cutting equipment is designed and built with safety in mind. However, your overall safety can be increased by proper installation ... and thoughtful operation on your part. **DO NOT INSTALL, OPERATE OR REPAIR THIS EQUIPMENT WITHOUT READING THIS MANUAL AND THE SAFETY PRECAUTIONS CONTAINED THROUGHOUT.** And, most importantly, think before you act and be careful.

⚠ WARNING

This statement appears where the information must be followed exactly to avoid serious personal injury or loss of life.

⚠ CAUTION

This statement appears where the information must be followed to avoid minor personal injury or damage to this equipment.

KEEP YOUR HEAD OUT OF THE FUMES.

DON'T get too close to the arc. Use corrective lenses if necessary to stay a reasonable distance away from the arc.

READ and obey the Safety Data Sheet (SDS) and the warning label that appears on all containers of welding materials.

USE ENOUGH VENTILATION or exhaust at the arc, or both, to keep the fumes and gases from your breathing zone and the general area.

IN A LARGE ROOM OR OUTDOORS, natural ventilation may be adequate if you keep your head out of the fumes (See below).

USE NATURAL DRAFTS or fans to keep the fumes away from your face.

If you develop unusual symptoms, see your supervisor. Perhaps the welding atmosphere and ventilation system should be checked.

WEAR CORRECT EYE, EAR & BODY PROTECTION

PROTECT your eyes and face with welding helmet properly fitted and with proper grade of filter plate (See ANSI Z49.1).

PROTECT your body from welding spatter and arc flash with protective clothing including woolen clothing, flame-proof apron and gloves, leather leggings, and high boots.

PROTECT others from splatter, flash, and glare with protective screens or barriers.

IN SOME AREAS, protection from noise may be appropriate.

BE SURE protective equipment is in good condition.

Also, wear safety glasses in work area **AT ALL TIMES.**

SPECIAL SITUATIONS

DO NOT WELD OR CUT containers or materials which previously had been in contact with hazardous substances unless they are properly cleaned. This is extremely dangerous.

DO NOT WELD OR CUT painted or plated parts unless special precautions with ventilation have been taken. They can release highly toxic fumes or gases.

Additional precautionary measures

PROTECT compressed gas cylinders from excessive heat, mechanical shocks, and arcs; fasten cylinders so they cannot fall.

BE SURE cylinders are never grounded or part of an electrical circuit.

REMOVE all potential fire hazards from welding area.

ALWAYS HAVE FIRE FIGHTING EQUIPMENT READY FOR IMMEDIATE USE AND KNOW HOW TO USE IT.

SECTION A: WARNINGS

CALIFORNIA PROPOSITION 65 WARNINGS

WARNING: Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects, or other reproductive harm.

- Always start and operate the engine in a well-ventilated area.
- If in an exposed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system.
- Do not idle the engine except as necessary.

For more information go to www.P65 warnings.ca.gov/diesel

WARNING: This product, when used for welding or cutting, produces fumes or gases which contain chemicals known to the State of California to cause birth defects and, in some cases, cancer. (California Health & Safety Code § 25249.5 *et seq.)*

WARNING: Cancer and Reproductive Harm www.P65warnings.ca.gov

ARC WELDING CAN BE HAZARDOUS. PROTECT YOURSELF AND OTHERS FROM POSSIBLE SERIOUS INJURY OR DEATH. KEEP CHILDREN AWAY. PACEMAKER WEARERS SHOULD CONSULT WITH THEIR DOCTOR BEFORE OPERATING.

Read and understand the following safety highlights. For additional safety information, it is strongly recommended that you purchase a copy of "Safety in Welding & Cutting - ANSI Standard Z49.1" from the American Welding Society, P.O. Box 351040, Miami, Florida 33135 or CSA Standard W117.2. A Free copy of "Arc Welding Safety" booklet E205 is available from the Lincoln Electric Company, 22801 St. Clair Avenue, Cleveland, Ohio 44117-1199.

BE SURE THAT ALL INSTALLATION, OPERATION, MAINTENANCE AND REPAIR PROCEDURES ARE PERFORMED ONLY BY QUALIFIED INDIVIDUALS.

FOR ENGINE POWERED EQUIPMENT.

1.a. Turn the engine off before troubleshooting and maintenance work unless the maintenance work requires it to be running.

1.b. Operate engines in open, well-ventilated areas or vent the engine exhaust fumes outdoors.

1.c. Do not add the fuel near an open flame welding arc or when the engine is running. Stop the engine and allow it to cool before refueling to prevent spilled fuel from vaporizing on contact with hot engine parts and igniting. Do not spill fuel when filling tank. If fuel is spilled, wipe it up and do not start engine until fumes have been eliminated.

1.d. Keep all equipment safety guards, covers and devices in position and in good repair. Keep hands, hair, clothing and tools away from V-belts, gears, fans and all other moving parts when starting, operating or repairing equipment.

1.e. In some cases it may be necessary to remove safety guards to perform required maintenance. Remove guards only when necessary and replace them when the maintenance requiring their removal is complete. Always use the greatest care when working near moving parts.

1.f. Do not put your hands near the engine fan. Do not attempt to override the governor or idler by pushing on the throttle control rods while the engine is running.

1.g. To prevent accidentally starting gasoline engines while turning the engine or welding generator during maintenance work, disconnect the spark plug wires, distributor cap or magneto wire as appropriate.

1.h. To avoid scalding, do not remove the radiator pressure cap when the engine is hot.

ELECTRIC AND MAGNETIC FIELDS MAY BE DANGEROUS

2.a. Electric current flowing through any conductor causes localized Electric and Magnetic Fields (EMF). Welding current creates EMF fields around welding cables and welding machines

2.b. EMF fields may interfere with some pacemakers, and welders having a pacemaker should consult their physician before welding.

2.c. Exposure to EMF fields in welding may have other health effects which are now not known.

2.d. All welders should use the following procedures in order to minimize exposure to EMF fields from the welding circuit:

2.d.1. Route the electrode and work cables together - Secure them with tape when possible.

2.d.2. Never coil the electrode lead around your body.

2.d.3. Do not place your body between the electrode and work cables. If the electrode cable is on your right side, the work cable should also be on your right side.

2.d.4. Connect the work cable to the workpiece as close as possible to the area being welded.

2.d.5. Do not work next to welding power source.

ELECTRIC SHOCK CAN KILL.

3.a. The electrode and work (or ground) circuits are electrically “hot” when the welder is on. Do not touch these “hot” parts with your bare skin or wet clothing. Wear dry, hole-free gloves to insulate hands.

3.b. Insulate yourself from work and ground using dry insulation. Make certain the insulation is large enough to cover your full area of physical contact with work and ground.

In addition to the normal safety precautions, if welding must be performed under electrically hazardous conditions (in damp locations or while wearing wet clothing; on metal structures such as floors, gratings or scaffolds; when in cramped positions such as sitting, kneeling or lying, if there is a high risk of unavoidable or accidental contact with the workpiece or ground) use the following equipment:

- Semiautomatic DC Constant Voltage (Wire) Welder.
- DC Manual (Stick) Welder.
- AC Welder with Reduced Voltage Control.

3.c. In semiautomatic or automatic wire welding, the electrode, electrode reel, welding head, nozzle or semiautomatic welding gun are also electrically “hot”.

3.d. Always be sure the work cable makes a good electrical connection with the metal being welded. The connection should be as close as possible to the area being welded.

3.e. Ground the work or metal to be welded to a good electrical (earth) ground.

3.f. Maintain the electrode holder, work clamp, welding cable and welding machine in good, safe operating condition. Replace damaged insulation.

3.g. Never dip the electrode in water for cooling.

3.h. Never simultaneously touch electrically “hot” parts of electrode holders connected to two welders because voltage between the two can be the total of the open circuit voltage of both welders.

3.i. When working above floor level, use a safety belt to protect yourself from a fall should you get a shock.

3.j. Also see Items 6.c. and 8.

ARC RAYS CAN BURN.

4.a. Use a shield with the proper filter and cover plates to protect your eyes from sparks and the rays of the arc when welding or observing open arc welding. Headshield and filter lens should conform to ANSI Z87. I standards.

4.b. Use suitable clothing made from durable flame-resistant material to protect your skin and that of your helpers from the arc rays.

4.c. Protect other nearby personnel with suitable, non-flammable screening and/or warn them not to watch the arc nor expose themselves to the arc rays or to hot spatter or metal.

FUMES AND GASES CAN BE DANGEROUS.

5.a. Welding may produce fumes and gases hazardous to health. Avoid breathing these fumes and gases. When welding, keep your head out of the fume. Use enough ventilation and/or exhaust at the arc to keep fumes and gases away from the breathing zone. **When welding hardfacing (see instructions on container or SDS) or on lead or cadmium plated steel and other metals or coatings which produce highly toxic fumes, keep exposure as low as possible and within applicable OSHA PEL and ACGIH TLV limits using local exhaust or mechanical ventilation unless exposure assessments indicate otherwise. In confined spaces or in some circumstances, outdoors, a respirator may also be required. Additional precautions are also required when welding on galvanized steel.**

5. b. The operation of welding fume control equipment is affected by various factors including proper use and positioning of the equipment, maintenance of the equipment and the specific welding procedure and application involved. Worker exposure level should be checked upon installation and periodically thereafter to be certain it is within applicable OSHA PEL and ACGIH TLV limits.

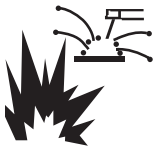
5.c. Do not weld in locations near chlorinated hydrocarbon vapors coming from degreasing, cleaning or spraying operations. The heat and rays of the arc can react with solvent vapors to form phosgene, a highly toxic gas, and other irritating products.

5.d. Shielding gases used for arc welding can displace air and cause injury or death. Always use enough ventilation, especially in confined areas, to insure breathing air is safe.

5.e. Read and understand the manufacturer’s instructions for this equipment and the consumables to be used, including the Safety Data Sheet (SDS) and follow your employer’s safety practices. SDS forms are available from your welding distributor or from the manufacturer.

5.f. Also see item 1.b.

WELDING AND CUTTING SPARKS CAN CAUSE FIRE OR EXPLOSION.



6.a. Remove fire hazards from the welding area. If this is not possible, cover them to prevent the welding sparks from starting a fire. Remember that welding sparks and hot materials from welding can easily go through small cracks and openings to adjacent areas. Avoid welding near hydraulic lines. Have a fire extinguisher readily available.

6.b. Where compressed gases are to be used at the job site, special precautions should be used to prevent hazardous situations. Refer to "Safety in Welding and Cutting" (ANSI Standard Z49.1) and the operating information for the equipment being used.

6.c. When not welding, make certain no part of the electrode circuit is touching the work or ground. Accidental contact can cause overheating and create a fire hazard.

6.d. Do not heat, cut or weld tanks, drums or containers until the proper steps have been taken to insure that such procedures will not cause flammable or toxic vapors from substances inside. They can cause an explosion even though they have been "cleaned". For information, purchase "Recommended Safe Practices for the Preparation for Welding and Cutting of Containers and Piping That Have Held Hazardous Substances", AWS F4.1 from the American Welding Society (see address above).

6.e. Vent hollow castings or containers before heating, cutting or welding. They may explode.

6.f. Sparks and spatter are thrown from the welding arc. Wear oil free protective garments such as leather gloves, heavy shirt, cuffless trousers, high shoes and a cap over your hair. Wear ear plugs when welding out of position or in confined places. Always wear safety glasses with side shields when in a welding area.

6.g. Connect the work cable to the work as close to the welding area as practical. Work cables connected to the building framework or other locations away from the welding area increase the possibility of the welding current passing through lifting chains, crane cables or other alternate circuits. This can create fire hazards or overheat lifting chains or cables until they fail.

6.h. Also see item 1.c.

6.I. Read and follow NFPA 51B "Standard for Fire Prevention During Welding, Cutting and Other Hot Work", available from NFPA, 1 Batterymarch Park, PO box 9101, Quincy, MA 022690-9101.

6.j. Do not use a welding power source for pipe thawing.

CYLINDER MAY EXPLODE IF DAMAGED.

7.a. Use only compressed gas cylinders containing the correct shielding gas for the process used and properly operating regulators designed for the gas and pressure used. All hoses, fittings, etc. should be suitable for the application and maintained in good condition.

7.b. Always keep cylinders in an upright position securely chained to an undercarriage or fixed support.

7.c. Cylinders should be located:

- Away from areas where they may be struck or subjected to physical damage.
- A safe distance from arc welding or cutting operations and any other source of heat, sparks, or flame.

7.d. Never allow the electrode, electrode holder or any other electrically "hot" parts to touch a cylinder.

7.e. Keep your head and face away from the cylinder valve outlet when opening the cylinder valve.

7.f. Valve protection caps should always be in place and hand tight except when the cylinder is in use or connected for use.

7.g. Read and follow the instructions on compressed gas cylinders, associated equipment, and CGA publication P-I, "Precautions for Safe Handling of Compressed Gases in Cylinders," available from the Compressed Gas Association, 14501 George Carter Way Chantilly, VA 20151.

FOR ELECTRICALLY POWERED EQUIPMENT.

8.a. Turn off input power using the disconnect switch at the fuse box before working on the equipment.

8.b. Install equipment in accordance with the U.S. National Electrical Code, all local codes and the manufacturer's recommendations.

8.c. Ground the equipment in accordance with the U.S. National Electrical Code and the manufacturer's recommendations.

Refer to http://www.lincolnelectric.com/safety for additional safety information.

Technical Specifications HELIX® TRACK

Physical Dimensions				
Model	Height	Width	Depth	Weight
K52000-XX	11.8 - 95.6 in (300 - 2,428 mm)	11.8 - 95.6 in (300 - 2,428 mm)	3.9 in (99 mm)	13.6 - 71.0 lbs (6.2 - 32.2 kg)
K52083-18	1.0 in (25 mm)	19.0 in (483 mm)	4.2 in (107 mm)	4.6 lb (2.1 kg)
K52083-48	1.5 in (38 mm)	48.4 in (1,229 mm)	3.9 in (99 mm)	13.1 lb (5.9 kg)
K52090-1	3.3 in (84 mm)	48.4 in (1,229 mm)	8.3 in (211 mm)	22.1 lb (10.0 kg)
K52218-XX	35.6 - 95.6 in (904 - 2,428 mm)	35.6 - 95.6 in (904 - 2,428 mm)	3.9 in (99 mm)	33.2 - 68.4 lbs (15.1 - 31.0 kg)

Temperature Ranges	
Operating Temperature Range 32°F to 122°F (0°C - 50°C)	Storage Temperature Range -22°F to 140°F (-30°C - 60°C)

A -weighted emission sound pressure level: less than 70 db (A)

Basic Information

The HELIX Track Rings and HELIX Flat Tracks are rugged, durable tracks suitable for use in a wide variety of applications and environments. The Track Rings and Flat Tracks are designed to be easy to install quickly and consistently, providing a reliable drive track for select HELIX Weld Heads. The heavy-duty track construction consists of 4130 Alloy Steel tubing and 1018 Alloy Steel components welded into a sturdy assembly that can withstand abuse, ensuring a long product lifespan.

The tracks come in three primary configurations - Outside Diameter (OD) Track Rings for welding the outside of a pipe, Flat Tracks for linear welds, and Inside Diameter (ID) Track Rings for welding the inside of a pipe. Each of these track configurations comes in different sizes and features a variety of accessories to accommodate almost any type of application or setup.

OD Track Rings are available in sizes from 8 to 24 inches in two inch increments and then in four inch increments from 28 to 92 inches. Each of these tracks have optional shoe extensions of 0.25, 0.5, 1, 2, and 3 inches. These allow a track sized for a particular pipe diameter to be used on a smaller pipe. Extension shoes can be stacked for sizes beyond 3 inches.

Flat Tracks are available in 18 inch and 48 inch lengths. The 48 inch long Flat Tracks can be attached end-to-end to create a continuous track of unlimited length. The flat tracks can be mounted by bolting the track directly to the work piece or a fixture, using magnetic shoes, or with vacuum shoes.

ID Track Rings are available in sizes from 33 to 93 inches in three inch increments. Each of these tracks have optional shoe extensions of 0.5, 0.75, 1, and 2 inches. These allow a track sized for a particular pipe diameter to be used on a larger pipe.

Refer to the tables on pages D-1 through D-5 for standard track sizes as well as the extensions and accessories that are available.

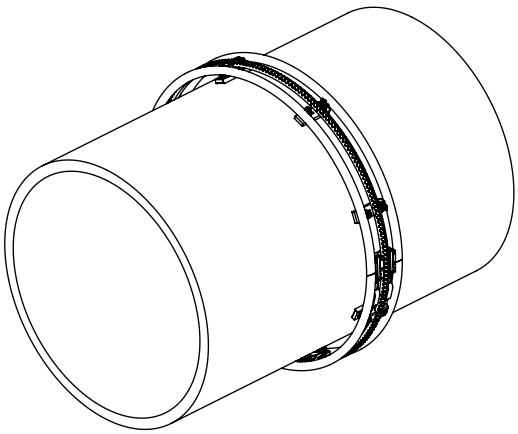


Figure 1 - HELIX OD Track Ring

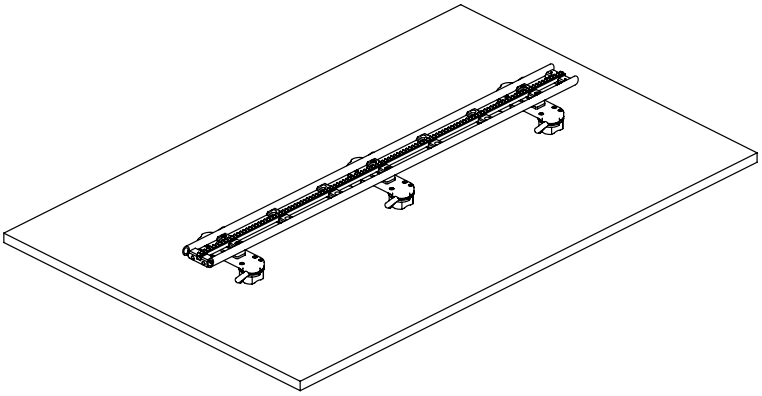


Figure 2 - HELIX Flat Track

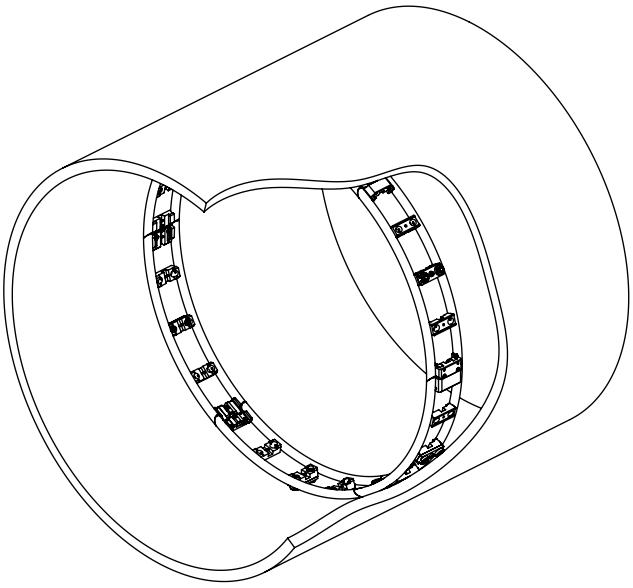


Figure 3 - HELIX ID Track Ring

Installation

HOT SURFACE WARNING!

After a weld, allow enough time for the track and work surface to cool before removing or installing a track.

OD Track

Before installing the track ring, verify that the shoes are adjusted to the nominal position. This will help ensure the track ring mounts concentric to the pipe. For track sizes between 8 inch and 32 inch the shoe adjustment screws should stick out above the cross members by about 1/8 inch. For track sizes of 36 inches and above the shoe adjustment screws should be flush with the cross member surface. See Figure 4 – Nominal Shoe Adjustment.

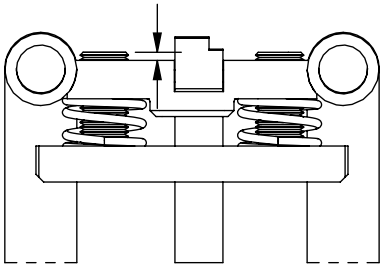


Figure 4 - Nominal Shoe Adjustment

To install the track ring:

With the track open, place the section of the track with the latches on top of the pipe surface. See FIGURE 5 - Track Ring Placement for proper placement. Putting the track ring in this position allows the operator to bring the hanging portion of the track up to the latches.

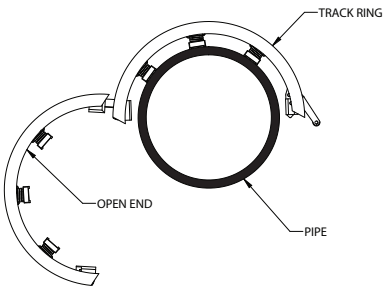


Figure 5 - Track Ring Placement

With the latches hanging freely – see FIGURE 6 - Latch Positions – slide the latch catches into the notches. Doing this will hook the track in place without the need to employ the latches. Position the track along the pipe so that the torch will be centered over the joint when the weld head steering axis is centered. This position vary depending on the weld head and torch being used. Engage each latch until it snaps into place below the outer track surface.

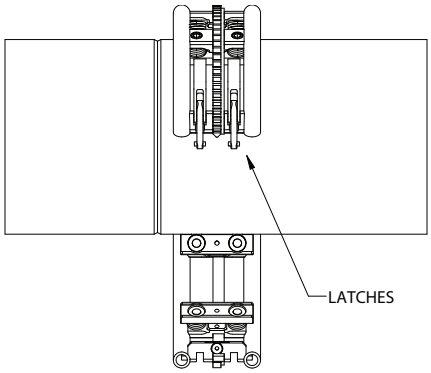


Figure 6 - Latch Positions

The OD track ring is designed to be supported on the pipe completely by the shoe springs rather than the shoe adjustment screws. This ensures that the shoes can move enough to compensate for out-of-round pipe or to accommodate variations in pipe geometry when moving the track from one pipe to another. To verify that the shoe screws are properly adjusted so that the springs are supporting the track, perform the following steps: With the track clamped on the pipe check each shoe to make sure that it is touching the pipe surface. If a shoe is held above the surface of the pipe, drive both shoe adjustment screws with a 1/4 inch or 6 mm hex hey toward the pipe until the shoe touches the surface. At that point the screws should turn freely without any resistance and drive them in an addition 2 turns. If a shoe is already in contact with the pipe, check that each shoe screw can turn freely with no resistance or load. If there is resistance to turning a screw you should drive it out until it starts to turn freely, and then continue to drive it out an additional 2 turns.

If you determine that the track is not held rigid enough with the default shoe adjustment, you can drive the shoe screws in to make contact with the pipe directly. This will hold the track in place very securely but the track may require adjustment if it is moved to another pipe.

Once mounted, verify that the track ring sits concentric with the pipe – see FIGURE 7 – Proper Track Ring Spacing. Improper adjustment of the shoes can result in the ring being off center – see FIGURE 8 -Improper Track Ring Spacing. Improper track ring spacing can also result from an out-of-round pipe.

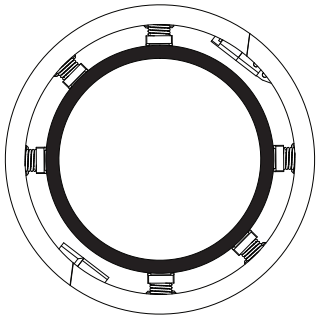


Figure 7 - Proper Track Ring Placement

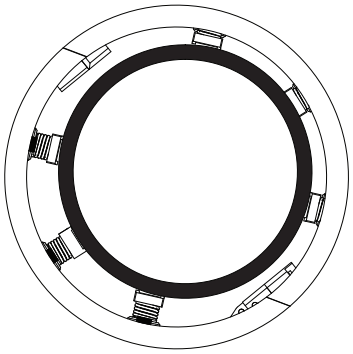


Figure 8 - Improper Track Ring Spacing

Flat Track

The 48 inch long HELIX Flat Tracks can be attached end-to-end to create a continuous track of unlimited length. One end of each track has two retained shoulder screws and the other end has threaded holes. To join two track sections together simply screw the shoulder screws from one track into the threaded holes on the next using a 3/32 or 4 mm hex key – see Figure 9 – Flat Track Connection.

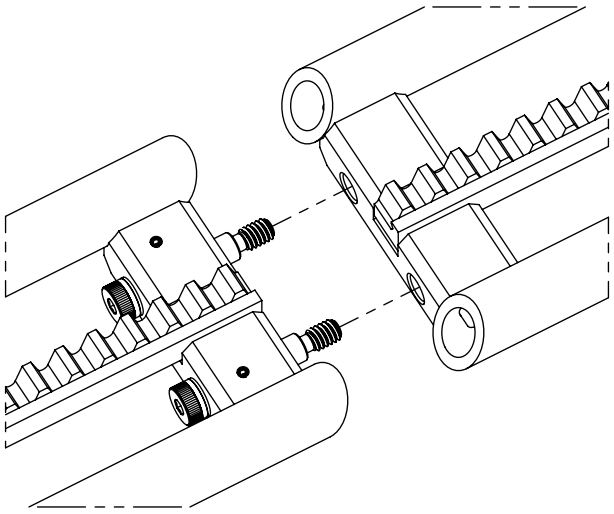


Figure 9 - Flat Track Connection

Screw Mounting

K52083-48 HELIX Flat Tracks are mounted using threaded spacers that are attached to the track. Each track had 3 spacers for a total of 6 mounting threads. Use 5/16-18 screws to attach the track to a fixture or directly to the work piece. The screw depth into the threaded spacers should not exceed .40 inches. See page D-1 for the mounting hole locations. CAD models are also available. The threaded spacers can be moved to different cross members if desired. Position the track so that the torch will be centered over the joint when the weld head steering axis is centered. This position vary depending on the weld head and torch being used.

Magnetic Shoe Mounting

Warning: HELIX Track Magnetic Shoes are design to mount to a clean steel work piece. The mounting surface must be at least 3/16 inch thick in order to achieve full holding force. Before mounting the track, make sure the mounting surface is smooth and free of dirt and oil.

When using magnetic track shoes the track should be positioned before engaging the magnets. Position the track so that the torch will be centered over the joint when the weld head steering axis is centered. This position vary depending on the weld head and torch being used. To engage the magnets, turn the lever until it locks into the closed position – see FIGURE 10 - Flat Track Magnetic Shoe. There are two levers on each magnetic shoe. When the magnet is engaged the lever is roughly parallel to the track. When the magnet is released the lever is pointing away from the track.

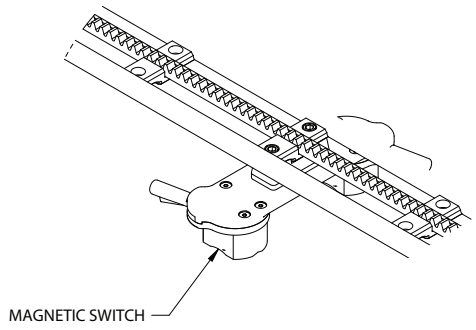


FIGURE 10 - Flat Track Magnetic Switch

Maintenance

HELIX Track is designed for trouble-free operation and normally requires minimal preventive care and cleaning. This section provides instructions for maintaining user serviceable items. The suggested repair procedure for all such items is to remove and replace defective assemblies or parts. When users and/or service personnel are not familiar with electrical and electronic equipment, the product should be returned to the factory or serviced by factory authorized representatives.

Maintenance Schedule

The maintenance schedule is suggested as a guideline for proper system maintenance. More stringent maintenance requirements may be required depending on the work being performed and the requirements of the customer for whom the work is performed. All maintenance schedules are based on a 40-hour work week.

Any excess play in parts or equipment should be noted and reported to an authorized repair facility. Any anomalous activity, such as motor hesitation, clicking or other noises, or anything out of the ordinary should be noted and reported to an authorized repair facility.

Every Shift

- Check track and latches and magnetic shoes for loose connections and worn areas.

Monthly

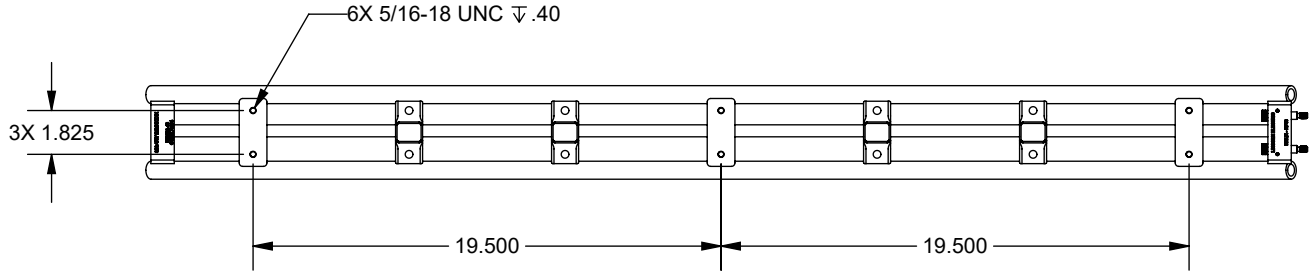
- Examine all track connections to verify no damage. Make sure all track connections are tight and that there is no visible wear and tear to any clamp or shoe extensions.
- Add a drop of light oil to the hinges, latches and adjusting screws.

Flat Track & Shoes

Flat Track	Part Number
HELIX Flat Track 18 in (457.2 mm)	K52083-18
HELIX Flat Track 48 in (1219 mm)	K52083-48
HELIX Flat Track 48 in (1219 mm) w/Magnetic Shoes	K52090-1

Accessories	Part Number
Flat Track Magnetic Shoe	K52089-1
Flat Track Vacuum Shoe	K52227-1

Flat Track Mounting Hole Locations



Outside Diameter Track Rings, Shoes & Shoe Extensions

Outside Diameter (OD) Quick-Release Track Rings	Part Number	Sections	Shoes
HELIX TRACK RING **8 in (203 mm)**	K52000-08	2	4
HELIX TRACK RING **10 in (254 mm)**	K52000-10	2	4
HELIX TRACK RING **12 in (305 mm**)	K52000-12	2	6
HELIX TRACK RING **14 in (356 mm)**	K52000-14	2	6
HELIX TRACK RING **16 in (406 mm)**	K52000-16	2	6
HELIX TRACK RING **18 in (457 mm)**	K52000-18	2	6
HELIX TRACK RING **20 in (508 mm)**	K52000-20	2	8
HELIX TRACK RING **22 in (559 mm)**	K52000-22	2	8
HELIX TRACK RING **24 in (610 mm)**	K52000-24	2	8
HELIX TRACK RING **28 in (711 mm)**	K52000-28	2	5
HELIX TRACK RING **32 in (813 mm)**	K52000-32	2	5
HELIX TRACK RING **36 in (914 mm)**	K52000-36	4	6
HELIX TRACK RING **40 in (1016 mm)**	K52000-40	4	6
HELIX TRACK RING **44 in (1118 mm)**	K52000-44	4	8
HELIX TRACK RING **48 in (1219 mm)**	K52000-48	4	8
HELIX TRACK RING **52 in (1321 mm)**	K52000-52	4	8
HELIX TRACK RING **56 in (1422 mm)**	K52000-56	4	10
HELIX TRACK RING **60 in (1524 mm)**	K52000-60	4	10
HELIX TRACK RING **64 in (1626 mm)**	K52000-64	4	10
HELIX TRACK RING **68 in (1727 mm)**	K52000-68	6	12
HELIX TRACK RING **72 in (1829 mm**)	K52000-72	6	12
HELIX TRACK RING **76 in (1930 mm)**	K52000-76	6	12
HELIX TRACK RING **80 in (2032 mm)**	K52000-80	6	12
HELIX TRACK RING **84 in (2134 mm)**	K52000-84	6	15
HELIX TRACK RING **88 in (2235 mm)**	K52000-88	6	15
HELIX TRACK RING **92 in (2337 mm)**	K52000-92	6	15

OD Track Shoe Extensions	Part Number
Shoe Extension **Aluminum .25 in (6.35 mm)**	K52060-03
Shoe Extension **Aluminum 0.5 in (122.7 mm)**	K52060-05
Shoe Extension **Aluminum 1.0 in (25.4 mm)**	K52060-10
Shoe Extension **Aluminum 2.0 (50.8 mm)**	K52060-20
Shoe Extension **Aluminum 3.0 in (76.2mm)**	K52060-30
Shoe Extension **Stainless Steel 0.25 in (6.35 mm)**	K52149-03
Shoe Extension **Stainless Steel 0.5 in (122.7 mm)**	K52149-05
Shoe Extension **Stainless Steel 1.0 in (25.4 mm)**	K52149-10
Shoe Extension **Stainless Steel 2.0 in (50.8 mm)**	K52149-20
Shoe Extension **Stainless Steel 3.0 in (76.2mm)**	K52149-30

Larger sizes can be made to order. For inquiries please call: 1-800-770-0063 or email at orbitalsales@lincolnelectric.

Outside Diameter (OD) Quick-Release Track Rings	Pipe OD in (mm) Shoe Extension					
	None	-03	-05	-10	-20	-30
HELIX TRACK RING **8 in (203 mm)**	8.30 - 8.75 (210.8 - 222.3)"	7.80 - 8.57 (198.1 - 217.7)	7.30 - 8.07 (185.4 - 205.0)	6.30 - 7.07 (160.0 - 179.6)	4.30 - 5.07 (109.2 - 128.8)	X
HELIX TRACK RING **10 in (254 mm)**	10.30 - 10.75 (261.6 - 273.1)	9.80 - 10.57 (248.9 - 268.5)	9.30 - 10.07 (236.2 - 255.8)	8.30 - 9.07 (210.8 - 230.4)	6.30 - 7.07 (160.0 - 179.6)	4.30 - 5.07 (109.2 - 128.8)
HELIX TRACK RING **12 in (305 mm)**	12.30 - 12.75 (312.4 - 323.9)	11.80 - 12.57 (299.7 - 319.3)	11.30 - 12.07 (287.0 - 306.6)	10.30 - 11.07 (261.6 - 281.2)	8.30 - 9.07 (210.8 - 230.4)	6.30 - 7.07 (160.0 - 179.6)
HELIX TRACK RING **14 in (356 mm)**	13.55 - 14.00 (344.2 - 355.6)	13.05 - 13.82 (331.5 - 351.0)	12.55 - 13.32 (318.8 - 338.3)	11.55 - 12.32 (293.4 - 312.9)	9.55 - 10.32 (242.6 - 262.1)	7.55 - 8.32 (191.8 - 211.3)
HELIX TRACK RING **16 in (406 mm)**	15.55 - 16.00 (395.0 - 406.4)	15.05 - 15.82 (382.3 - 401.8)	14.55 - 15.32 (369.6 - 389.1)	13.55 - 14.32 (344.2 - 363.7)	11.55 - 12.32 (293.4 - 312.9	9.55 - 10.32 (242.6 - 262.1)
HELIX TRACK RING **18 in (457 mm)**	17.55 - 18.00 (445.8 - 457.2)	17.05 - 17.82 (433.1 - 452.6)	16.55 - 17.32 (420.4 - 439.9)	15.55 - 16.32 (395.0 - 414.5)	13.55 - 14.32 (344.2 - 363.7)	11.55 - 12.32 (293.4 - 312.9)
HELIX TRACK RING **20 in (508 mm)**	19.55 - 20.00 (496.6 - 508.0)	19.05 - 19.82 (483.9 - 503.4)	18.55 - 19.32 (471.2 - 490.7)	17.55 - 18.32 (445.8 - 465.3)	15.55 - 16.32 (395.0 - 414.5)	13.55 - 14.32 (344.2 - 363.7)
HELIX TRACK RING **22 in (559 mm)**	21.55 - 22.00 (547.4 - 558.8)	21.05 - 21.82 (534.7 - 554.2)	20.55 - 21.32 (522.0 - 541.5)	19.55 - 20.32 (496.6 - 516.1)	17.55 - 18.32 (445.8 - 465.3)	"15.55 - 16.32 (395.0 - 414.5)"
HELIX TRACK RING **24 in (610 mm)**	23.55 - 24.00 (598.2 - 609.6)	23.05 - 23.82 (585.5 - 605.0)	22.55 - 23.32 (572.8 - 592.3)	21.55 - 22.32 (547.4 - 566.9)	19.55 - 20.32 (496.6 - 516.1)	17.55 - 18.32 (445.8 - 465.3)
HELIX TRACK RING **28 in (711 mm)**	27.55 - 28.00 (699.8 - 711.2)	27.05 - 27.82 (687.1 - 706.6)	26.55 - 27.32 (674.4 - 693.9)	25.55 - 26.32 (649.0 - 668.5)	23.55 - 24.32 (598.2 - 617.7)	21.55 - 22.32 (547.4 - 566.9)
HELIX TRACK RING **32 in (813 mm)**	31.55 - 32.00 (801.4 - 812.8)	31.05 - 31.82 (788.7 - 808.2)	30.55 - 31.32 (776.0 - 795.5)	29.55 - 30.32 (750.6 - 770.1)	27.55 - 28.32 (699.8 - 719.3)	25.55 - 26.32 (649.0 - 668.5)
HELIX TRACK RING **36 in (914 mm)**	35.80 - 36.25 (909.3 - 920.8)	35.30 - 36.07 (896.6 - 916.2)	34.80 - 35.57 (883.9 - 903.5)	33.80 - 34.57 (858.5 - 878.1)	31.80 - 32.57 (807.7 - 827.3)	29.80 - 30.57 (756.9 - 776.5)
HELIX TRACK RING **40 in (1016 mm)**	39.80 - 40.25 (1010.9 -1022.4)	39.30 - 40.07 (998.2 - 1017.8)	38.80 - 39.57 (985.5 - 1005.1)	"37.80 - 38.57 (960.1 - 979.7)"	35.80 - 36.57 (909.3 - 928.9)	33.80 - 34.57 (858.5 - 878.1)
HELIX TRACK RING **44 in (1118 mm**)	43.80 - 44.25 (1112.5 - 1124.0)	43.30 - 44.07 (1099.8 - 1119.4)	42.80 - 43.57 (1087.1 -1106.7)	41.80 - 42.57 (1061.7 - 1081.3)	39.80 - 40.57 (1010.9 - 1030.5)	37.80 - 38.57 (960.1 - 979.7)
HELIX TRACK RING **48 in (1219 mm)**	47.80 - 48.25 (1214.1 - 1225.6)	47.30 - 48.07 (1201.4 - 1221.0)	46.80 - 47.57 (1188.7 - 1208.3)	45.80 - 46.57 (1163.3 - 1182.9)	43.80 - 44.57 (1112.5 - 1132.1)	41.80 - 42.57 (1061.7 - 1081.3)
HELIX TRACK RING **52 in (1321 mm)**	51.80 - 52.25 (1315.7 - 1327.2)	51.30 - 52.07 (1303.0 - 1322.6)	50.80 - 51.57 (1290.3 - 1309.9)	49.80 - 50.57 (1264.9 - 1284.5)	47.80 - 48.57 (1214.1 - 1233.7)	45.80 - 46.57 (1163.3 - 1182.9)"
HELIX TRACK RING **56 in (1422 mm)**	55.80 - 56.25 (1417.3 - 1428.8)	55.30 - 56.07 (1404.6 - 1424.2)	54.80 - 55.57 (1391.9 - 1411.5)	53.80 - 54.57 (1366.5 - 1386.1)	51.80 - 52.57 (1315.7 - 1335.3)	49.80 - 50.57 (1264.9 - 1284.5)
HELIX TRACK RING **60 in (1524 mm)**	59.80 - 60.25 (1518.9 - 1530.4)	59.30 - 60.07 (1506.2 - 1525.8)	58.80 - 59.57 (1493.5 - 1513.1)	57.80 - 58.57 (1468.1 - 1487.7)	55.80 - 56.57 (1417.3 - 1436.9)	53.80 - 54.57 (1366.5 - 1386.1)
HELIX TRACK RING **64 in (1626 mm)**	63.80 - 64.25 (1620.5 - 1632.0)	63.30 - 64.07 (1607.8 - 1627.4)	62.80 - 63.57 (1595.1 - 1614.7)	61.80 - 62.57 (1569.7 - 1589.3)	59.80 - 60.57 (1518.9 - 1538.5)	57.80 - 58.57 (1468.1 - 1487.7)
HELIX TRACK RING **68 in (1727 mm)**	67.80 - 68.25 (1722.1 - 1733.6)	67.30 - 68.07 (1709.4 - 1729.0)	66.80 - 67.57 (1696.7 - 1716.3)	65.80 - 66.57 (1671.3 - 1690.9)	63.80 - 64.57 (1620.5 - 1640.1)	61.80 - 62.57 (1569.7 - 1589.3)
HELIX TRACK RING **72 in (1829 mm)**	71.80 - 72.25 (1823.7 - 1835.2)	71.30 - 72.07 (1811.0 - 1830.6)	70.80 - 71.57 (1798.3 - 1817.9)	69.80 - 70.57 (1772.9 - 1792.5)	67.80 - 68.57 (1722.1 - 1741.7)	65.80 - 66.57 (1671.3 - 1690.9)
HELIX TRACK RING **76 in (1930 mm)**	75.55 - 76.00 (1919.0 - 1930.4)	75.05 - 75.82 (1906.3 - 1925.8)	74.55 - 75.32 (1893.6 - 1913.1)	73.55 - 74.32 (1868.2 - 1887.7)"	71.55 - 72.32 (1817.4 - 1836.9)	69.55 - 70.32 (1766.6 - 1786.1)
HELIX TRACK RING **80 in (2032 mm)**	79.80 - 80.25 (2026.9 - 2038.4)	79.30 - 80.07 (2014.2 - 2033.8)	78.80 - 79.57 (2001.5 - 2021.1)	77.80 - 78.57 (1976.1 - 1995.7)	75.80 - 76.57 (1925.3 - 1944.9)	73.80 - 74.57 (1874.5 - 1894.1)
HELIX TRACK RING **84 in (2134 mm)**	83.80 - 84.25 (2128.5 - 2140.0)	83.30 - 84.07 (2115.8 - 2135.4)	82.80 - 83.57 (2103.1 - 2122.7)	81.80 - 82.57 (2077.7 - 2097.3)	79.80 - 80.57 (2026.9 - 2046.5)	77.80 - 78.57 (1976.1 - 1995.7)
HELIX TRACK RING **88 in (2235 mm)**	87.55 - 88.00 (2223.8 - 2235.2)	87.05 - 87.82 (2211.1 - 2230.6)	86.55 - 87.32 (2198.4 - 2217.9)	85.55 - 86.32 (2173.0 - 2192.5)	83.55 - 84.32 (2122.2 - 2141.7)	81.55 - 82.32 (2071.4 - 2090.9)
HELIX TRACK RING **92 in (2337 mm)**	91.80 - 92.25 (2331.7 - 2343.2)	91.30 - 92.07 (2319.0 - 2338.6)	90.80 - 91.57 (2306.3 - 2325.9)	89.80 - 90.57 (2280.9 - 2300.5)	87.80 - 88.57 (2230.1 - 2249.7)	85.80 - 86.57 (2179.3 - 2198.9)

Inside Diameter Track Rings, Shoes & Shoe Extensions

Inside Diameter (ID) Quick-Release Track Rings	Part Number	Sections	Shoes
HELIX Track Ring **36 in (914 mm)**	K52218-36	6	6
HELIX Track Ring **39 in (991 mm)**	K52218-39	6	6
HELIX Track Ring **42 in (1067 mm)**	K52218-42	6	6
HELIX Track Ring **45 in (1143 mm)**	K52218-45	6	6
HELIX Track Ring **48 in (1219 mm)**	K52218-48	6	6
HELIX Track Ring **51 in (1295 mm)**	K52218-51	6	6
HELIX Track Ring **54 in (1371 mm)**	K52218-54	6	6
HELIX Track Ring **57 in (1447 mm)**	K52218-57	6	6
HELIX Track Ring **60 in (1524 mm)**	K52218-60	6	6
HELIX Track Ring **63 in (1600 mm)**	K52218-63	6	6
HELIX Track Ring **66 in (1676 mm**)	K52218-66	6	6
HELIX Track Ring **69 in (1752 mm)**	K52218-69	6	6
HELIX Track Ring **72 in (1828 mm)**	K52218-72	6	6
HELIX Track Ring **75 in (1905 mm)**	K52218-75	6	6
HELIX Track Ring **78 in (1981 mm)**	K52218-78	6	6
HELIX Track Ring **81 in (2057 mm)**	K52218-81	6	6
HELIX Track Ring **84 in (2133 mm)**	K52218-84	6	6
HELIX Track Ring **87 in (2210 mm**)	K52218-87	6	6
HELIX Track Ring **90 in (2286 mm)**	K52218-90	6	6
HELIX Track Ring **93 in (2362 mm)**	K52218-93	6	6

ID Track Shoe Extensions	Part Number
ID Track Shoe Extension **0.5 in (12.7mm)**	K52256-05
ID Track Shoe Extension **0.75 in (19.5 mm)**	K52256-08
ID Track Shoe Extension **1.0 in (25.4 mm)**	K52256-10
ID Track Shoe Extension **2.0 in (50.8 mm)**	K52256-20

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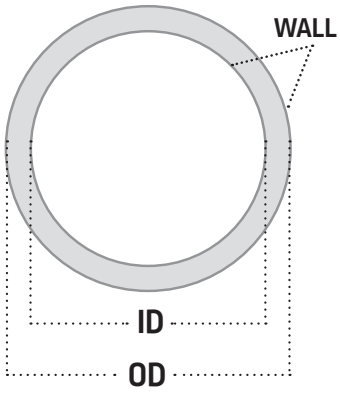
Inside Diameter (ID) Quick-Release Track Rings	Pipe ID in (mm) Shoe Extension				
	None	-05	-08	-10	-20
HELIX Track Ring **36 in (914 mm)**	38.71 - 39.72 (983.2 - 1008.9)	37.71 - 38.72 (957.8 - 983.5)	37.21 - 38.22 (945.1 - 970.8)	36.71 - 37.72 (932.4 - 958.1)	34.71 - 35.72 (881.6 - 907.3)
HELIX Track Ring **39 in (991 mm)**	41.71 - 42.72 (1059.4 - 1085.1)	40.71 - 41.72 (1034.0 - 1059.7)	40.21 - 41.22 (1021.3 - 1047.0)	39.71 - 40.72 (1008.6 - 1034.3)	37.71 - 38.72 (957.8 - 983.5)
HELIX Track Ring **42 in (1067 mm)**	44.71 - 45.72 (1135.6 - 1161.3)	43.71 - 44.72 (1110.2 - 1135.9)	43.21 - 44.22 (1097.5 - 1123.2)	42.71 - 43.72 (1084.8 - 1110.5)	40.71 - 41.72 (1034.0 - 1059.7)
HELIX Track Ring **45 in (1143 mm)**	47.71 - 48.72 (1211.8 - 1237.5)	46.71 - 47.72 (1186.4 - 1212.1)	46.21 - 47.22 (1173.7 - 1199.4)	45.71 - 46.72 (1161.0 - 1186.7)	43.71 - 44.72 (1110.2 - 1135.9)
HELIX Track Ring **48 in (1219 mm)**	50.71 - 51.72 (1288.0 - 1313.7)	49.71 - 50.72 (1262.6 - 1288.3)	49.21 - 50.22 (1249.9 - 1275.6)	48.71 - 49.72 (1237.2 - 1262.9)	46.71 - 47.72 (1186.4 - 1212.1)
HELIX Track Ring **51 in (1295 mm)**	53.71 - 54.72 (1364.2 - 1389.9)	52.71 - 53.72 (1338.8 - 1364.5)	52.21 - 53.22 (1326.1 - 1351.8)	51.71 - 52.72 (1313.4 - 1339.1)	49.71 - 50.72 (1262.6 - 1288.3)
HELIX Track Ring **54 in (1371 mm)**	56.71 - 57.72 (1440.4 - 1466.1)	55.71 - 56.72 (1415.0 - 1440.7)	55.21 - 56.22 (1402.3 - 1428.0)	54.71 - 55.72 (1389.6 - 1415.3)	52.71 - 53.72 (1338.8 - 1364.5)
HELIX Track Ring **57 in (1447 mm)**	59.71 - 60.72 (1516.6 - 1542.3)	58.71 - 59.72 (1491.2 - 1516.9)	58.21 - 59.22 (1478.5 - 1504.2)	57.71 - 58.72 (1465.8 - 1491.5)	55.71 - 56.72 (1415.0 - 1440.7)
HELIX Track Ring **60 in (1524 mm)**	62.71 - 63.72 (1592.8 - 1618.5)	61.71 - 62.72 (1567.4 - 1593.1)	61.21 - 62.22 (1554.7 - 1580.4)	60.71 - 61.72 (1542.0 - 1567.7)	58.71 - 59.72 (1491.2 - 1516.9)
HELIX Track Ring **63 in (1600 mm)**	65.71 - 66.72 (1669.0 - 1694.7)	64.71 - 65.72 (1643.6 - 1669.3)	64.21 - 65.22 (1630.9 - 1656.6)	63.71 - 64.72 (1618.2 - 1643.9)	61.71 - 62.72 (1567.4 - 1593.1)
HELIX Track Ring **66 in (1676 mm**)	68.71 - 69.72 (1745.2 - 1770.9)	67.71 - 68.72 (1719.8 - 1745.5)	67.21 - 68.22 (1707.1 - 1732.8)	66.71 - 67.72 (1694.4 - 1720.1)	64.71 - 65.72 (1643.6 - 1669.3)
HELIX Track Ring **69 in (1752 mm)**	71.71 - 72.72 (1821.4 - 1847.1)	70.71 - 71.72 (1796.0 - 1821.7)	70.21 - 71.22 (1783.3 - 1809.0)	69.71 - 70.72 (1770.6 - 1796.3)	67.71 - 68.72 (1719.8 - 1745.5)
HELIX Track Ring **72 in (1828 mm)**	74.71 - 75.72 (1897.6 - 1923.3)	73.71 - 74.72 (1872.2 - 1897.9)	73.21 - 74.22 (1859.5 - 1885.2)	72.71 - 73.72 (1846.8 - 1872.5)	70.71 - 71.72 (1796.0 - 1821.7)
HELIX Track Ring **75 in (1905 mm)**	77.71 - 78.72 (1973.8 - 1999.5)	76.71 - 77.72 (1948.4 - 1974.1)	76.21 - 77.22 (1935.7 - 1961.4)	75.71 - 76.72 (1923.0 - 1948.7)	73.71 - 74.72 (1872.2 - 1897.9)
HELIX Track Ring **78 in (1981 mm)**	80.71 - 81.72 (2050.0 - 2075.7)	9.71 - 80.72 (2024.6 - 2050.3)	79.21 - 80.22 (2011.9 - 2037.6)	78.71 - 79.72 (1999.2 - 2024.9)	76.71 - 77.72 (1948.4 - 1974.1)
HELIX Track Ring **81 in (2057 mm)**	83.71 - 84.72 (2126.2 - 2151.9)	82.71 - 83.72 (2100.8 - 2126.5)	82.21 - 83.22 (2088.1 - 2113.8)	81.71 - 82.72 (2075.4 - 2101.1)	79.71 - 80.72 (2024.6 - 2050.3)
HELIX Track Ring **84 in (2133 mm)**	86.71 - 87.72 (2202.4 - 2228.1)	85.71 - 86.72 (2177.0 - 2202.7)	85.21 - 86.22 (2164.3 - 2190.0)	84.71 - 85.72 (2151.6 - 2177.3)	82.71 - 83.72 (2100.8 - 2126.5)
HELIX Track Ring **87 in (2210 mm**)	89.71 - 90.72 (2278.6 - 2304.3)	88.71 - 89.72 (2253.2 - 2278.9)	88.21 - 89.22 (2240.5 - 2266.2)	87.71 - 88.72 (2227.8 - 2253.5)	85.71 - 86.72 (2177.0 - 2202.7)
HELIX Track Ring **90 in (2286 mm)**	92.71 - 93.72 (2354.8 - 2380.5)	91.71 - 92.72 (2329.4 - 2355.1)	91.21 - 92.22 (2316.7 - 2342.4)	90.71 - 91.72 (2304.0 - 2329.7)	88.71 - 89.72 (2253.2 - 2278.9)
HELIX Track Ring **93 in (2362 mm)**	95.71 - 96.72 (2431.0 - 2456.7)	94.71 - 95.72 (2405.6 - 2431.3)	94.21 - 95.22 (2392.9 - 2418.6)	93.71 - 94.72 (2380.2 - 2405.9)	91.71 - 92.72 (2329.4 - 2355.1)

STANDARD PIPING SCHEDULE CHART

OD in	OD mm	Schedule	Wall in	Wall mm	ID in	ID mm
1/8 0.405	10.3	10S 40ST, 40S 80SX, 80S	0.049 0.068 0.095	1.24 1.73 2.41	0.307 0.269 0.215	7.8 6.83 5.46
1/4 0.54	13.7	10S 40ST, 40S 80SX, 80S	0.065 0.088 0.119	1.65 2.24 3.02	0.41 0.364 0.302	10.41 9.25 7.67
3/8 0.675	17.1	10S 40ST, 40S 80SX, 80S	0.065 0.091 0.126	1.65 2.31 3.2	0.545 0.493 0.423	13.84 12.52 10.74
1/2 0.84	21.3	5S 10S 40ST, 40S 80SX, 80S	0.065 0.083 0.109 0.147 0.188 0.294	1.65 2.11 2.77 3.73 4.78 7.47	0.71 0.674 0.622 0.546 0.464 0.252	18.03 17.12 15.8 13.87 11.79 6.4
3/4 1.05	26.7	5S 10S 40ST, 40S 80SX, 80S 160 XX	0.065 0.083 0.113 0.154 0.219 0.308	1.65 2.11 2.87 3.91 5.56 7.82	0.92 0.884 0.824 0.742 0.612 0.434	23.37 22.45 20.93 18.85 15.54 11.02
1 1.315	33.4	5S 10S 40ST, 40S 80SX, 80S 160 XX	0.065 0.109 0.133 0.179 0.25 0.358	1.65 2.77 3.38 43.355 6.35 9.09	1.185 1.097 1.049 0.957 0.815 0.599	30.1 27.86 26.64 24.31 20.7 15.21
1 1/4 1.66	42.2	5S 10S 40ST, 40S 80SX, 80S 160 XX	0.065 0.109 0.14 0.191 0.25 0.382	1.65 2.77 3.56 4.856.35 9.7	1.53 1.442 1.38 1.278 1.16 0.896	38.86 36.63 35.05 32.46 29.46 22.76
1 1/2 1.9	48.3	5S 10S 40ST, 40S 80SX, 80S 160 XX	0.065 0.109 0.145 0.2 0.281 0.4	1.65 2.77 3.68 5.08 7.14 10.16	1.77 1.682 1.61 1.5 1.338 1.1	44.96 42.72 40.89 38.1 33.99 27.84
2 2.375	60.3	5S 10S 40ST, 40S 80SX, 80S 160 XX	0.065 0.109 0.154 0.218 0.344 0.436	1.65 2.77 3.91 5.54 8.74 11.07	2.245 2.157 2.067 1.939 1.687 1.503	57.02 54.79 52.5 49.25 42.85 38.18
2 1/2 2.875	73	5S 10S 40ST, 40S 80SX, 80S 160 XX	0.083 0.12 0.203 0.276 0.375 0.552	2.11 3.05 5.16 7.01 9.53 14.02	2.709 2.635 2.469 2.323 2.125 1.771	68.81 66.93 62.71 59 53.98 44.98
3 3.5	88.9	5S 10S 40ST, 40S 80SX, 80S 160 XX	0.083 0.12 0.216 0.3 0.438 0.6	2.11 3.05 5.49 7.62 11.13 15.24	3.334 3.26 3.068 2.9 2.624 2.3	84.68 82.8 77.93 73.66 66.65 58.42
3 1/2 4	101.6	5S 10S 40ST, 40S 80SX, 80S	0.083 0.12 0.226 0.318	2.11 3.05 5.74 8.08	3.934 3.76 3.548 3.364	97.38 95.5 90.12 85.45
4 4.5	114.3	5S 10S 40ST, 40S 80SX, 80S 120 160 XX	0.083 0.12 0.237 0.337 0.438 0.531 0.674	2.11 3.05 6.02 8.56 11.13 13.49 17.12	4.334 4.26 4.026 3.826 3.624 3.438 3.152	110.1 108.2 102.3 97.2 92 87.3 80.1
5 5.563	141.3	5S 10S 40ST, 40S 80SX, 80S 120 160 XX	0.109 0.134 0.258 0.375 0.5 0.625 0.75	2.77 3.4 6.55 9.53 12.7 15.88 19.05	5.345 5.295 5.047 4.813 4.563 4.313 4.063	135.8 134.5 128.2 122.3 115.9 109.6 103.2
6 6.625	168.3	5S 10S 40ST, 40S 80SX, 80S 120 160 XX	0.109 0.134 0.28 0.432 0.562 0.719 0.864	2.77 3.4 7.11 10.97 14.27 18.26 21.95	6.407 6.357 6.065 5.761 5.501 5.187 4.897	162.7 161.5 154.1 146.3 139.7 136.7 124.4
8 8.625	219.1	5S 10S 20 30 40ST, 40S 60 80SX, 80S 100 120 140 XX 160	0.109 0.148 0.25 0.277 0.322 0.406 0.5 0.594 0.719 0.812 0.875 0.906	2.77 3.76 6.35 7.04 8.18 10.31 12.7 15.09 18.26 20.62 22.23 23.01	8.407 8.329 8.125 8.071 7.981 7.813 7.625 7.437 7.187 7.001 6.875 6.813	213.5 211.6 206.4 205 202.7 198.5 193.7 188.9 182.5 177.8 174.6 173.1

LEGEND

Wall: Thickness of Material
OD: Outside Diameter
ID: Inside Diameter



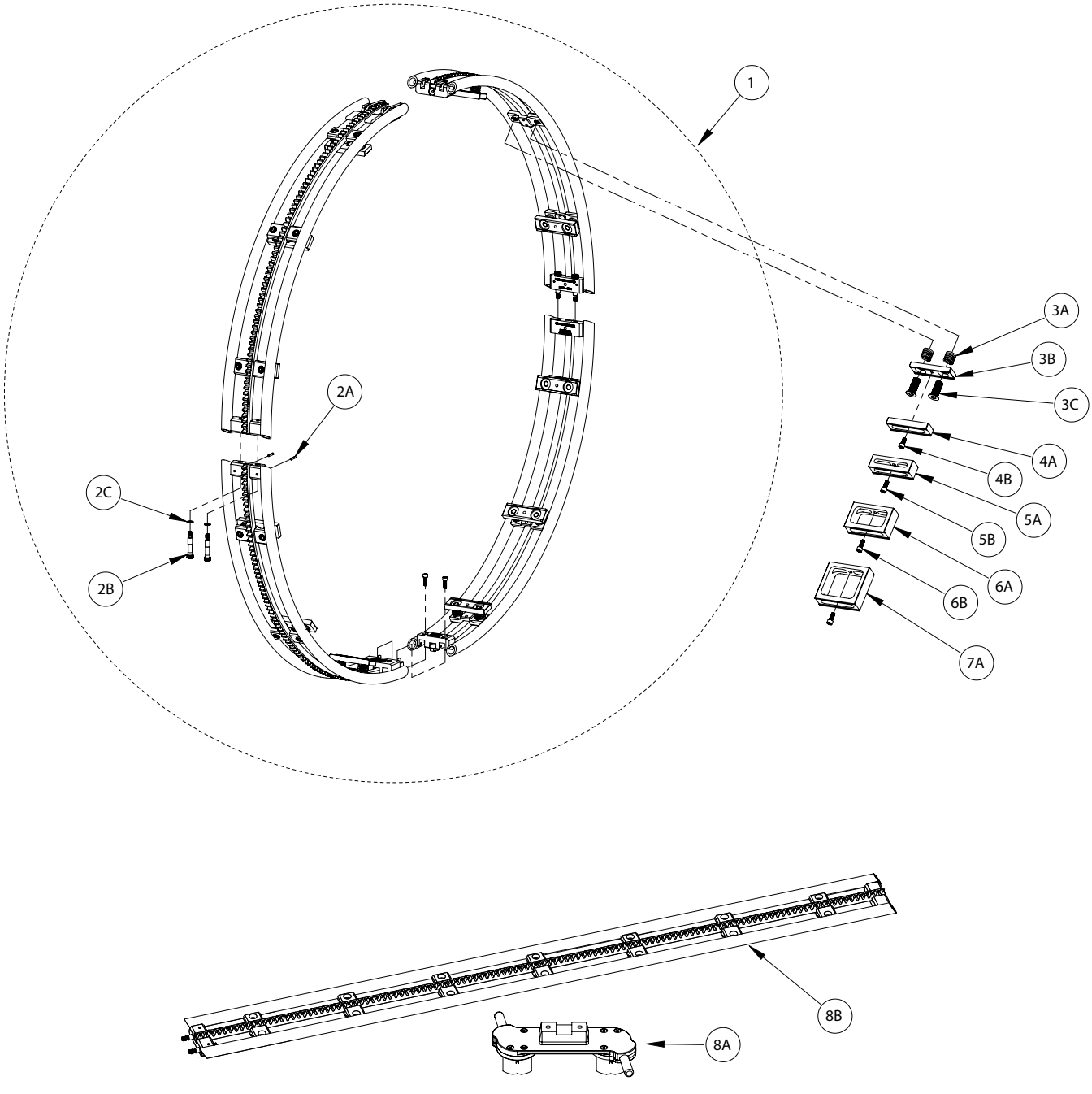
OD in	OD mm	Schedule	Wall in	Wall mm	ID in	ID mm
10 10.75	273	5S 10S 20 30 40ST, 40S 60XS, 80S 80 100 120 140, XX 160	0.134 0.165 0.25 0.307 0.365 0.5 0.594 0.719 0.844 1 1.12	3.4 4.19 6.35 7.8 9.27 12.7 15.09 18.26 21.44 25.4 28.58	10.482 10.42 10.25 10.136 10.02 9.75 9.562 9.312 9.062 8375 8.5	266.2 264.7 260.4 257.5 254.5 247.7 242.9 236.5 230.2 222.3 215.9
12	323.8	5S 10S 20 30 ST, 40S 40 S,80S 60 80 100 120,XX 140 160	0.156 0.18 0.25 0.33 0.375 0.406 0.5 0.562 0.688 0.844 1 1.125 1.312	3.96 4.587 6.35 8.38 9.53 10.31 12.7 14.27 17.48 21.44 25.4 28.58 33.32	12.438 12.39 12.25 12.09 12 11.938 11.75 11.626 11.374 11.062 10.75 10.5 10.126	315.9 314.7 311.2 307.1 304.8 304.2 298.5 295.3 288.9 281 273.1 266.7 257.2
14	355.6	5S 10S 10 20 30,ST 40 XS 60 80 100 120 140 160	0.156 0.188 0.25 0.312 0.375 0.438 0.5 0.594 0.75 0.938 1.094 1.25 1.406	3.96 4.78 6.35 7.92 9.53 11.13 12.7 15.09 19.05 23.83 27.79 31.75 35.71	13.688 13.624 13.5 13.376 13.25 13.124 13 12.812 12.5 12.124 11.812 11.5 11.188	347.7 346 342.9 339.8 336.6 333.3 330.2 325.4 317.5 308 300 292.1 284.2
16	406.4	5S 10S 10 20 30,ST 40, XS 60 80 100 120 140 160	0.165 0.188 0.25 0.312 0.375 0.5 0.656 0.844 1.031 1.219 1.438 1.594	4.19 4.78 6.35 7.92 9.53 12.7 16.66 21.44 26.19 30.96 36.53 40.49	15.67 15.624 15.5 15.376 15.25 15 14.688 14.312 13.938 13.562 13.124 12.812	398 396.8 393.7 390.6 387.4 381 373.1 363.5 354 344.5 333.3 325.4
18	457	5S 10S10 20 ST 30 XS 40 60 80 100 120 140 160	0.165 0.188 0.25 0.312 0.375 0.438 0.5 0.562 0.75 0.938 1.156 1.375 1.562 1.781	4.19 7.78 6.35 7.92 9.53 11.13 12.7 14.27 19.05 23.83 29.36 34.93 39.67 45.24	17.67 17.624 17.5 17.376 17.25 17.124 17 16.876 16.5 16.124 15.688 15.25 14.876 14.438	449 448 445 441 438 435 432 429 419 410 398 387 378 367
20	508	5S 10S 10 20,ST 30, XS 40 60 80 100 120 140 160	0.188 0.218 0.25 0.375 0.5 0.594 0.812 1.031 1.281 1.5 1.75 1.969	4.78 5.54 6.35 9.53 12.7 15.09 20.62 26.19 32.54 38.1 44.45 50.01	19.624 19.564 19.5 19.25 19 18.812 18.376 17.938 17.438 17 16.5 16.062	498 497 495 489 483 478 467 456 443 432 419 408
24	610	5S 10, 10S 20, ST XS 30 40 60 80 100 120 140 160	0.218 0.25 0.375 0.5 0.562 0.688 0.969 1.218 1.531 1.812 2.062 2.344	5.54 6.35 9.53 12.7 14.27 17.48 24.61 30.96 38.89 46.02 52.37 59.54	23.564 23.5 23.25 23 22.876 22.624 22.062 21.562 20.938 20.376 19.876 19.312	599 597 591 584 581 575 560 548 532 518 505 491
30	762	5S 10, 10S ST 20, XS 30	0.25 0.312 0.375 0.5 0.625	6.35 7.92 9.53 12.7 15.88	29.5 29.376 29.25 29 28.75	749 746 743 737 730

P-1103-A
GENERAL ASSEMBLY

HELIX® TRACK
PARTS MANUAL

This parts list is provided as an informative guide only.

TRACK OPTIONS



NOTE: This Parts Manual is provided as an informative guide only. When ordering parts always refer to the Lincoln Electric Parts List.

TRACK OPTIONS

# Indicates a change in this printing.

Use only the parts marked "x" in the column under the heading number called for in the model index

ITEM	DESCRIPTION	PART NO.	QTY.	1	2	3	4	5	6	7	8	9
	Track Options											
	Track Ring 8"	K52000-08	1	x								
	Track Ring 10"	K52000-10	1	x								
	Track Ring 12"	K52000-12	1	x								
	Track Ring 14"	K52000-14	1	x								
	Track Ring 16"	K52000-16	1	x								
	Track Ring 18"	K52000-18	1	x								
	Track Ring 20"	K52000-20	1	x								
	Track Ring 22"	K52000-22	1	x								
	Track Ring 24"	K52000-24	1	x								
	Track Ring 28"	K52000-28	1	x								
	Track Ring 32"	K52000-32	1	x								
	Track Ring 36"	K52000-36	1	x								
1	Track Ring 40"	K52000-40	1	x								
	Track Ring 44"	K52000-44	1	x								
	Track Ring 48"	K52000-48	1	x								
	Track Ring 52"	K52000-52	1	x								
	Track Ring 56"	K52000-56	1	x								
	Track Ring 60"	K52000-60	1	x								
	Track Ring 64"	K52000-64	1	x								
	Track Ring 68"	K52000-68	1	x								
	Track Ring 72"	K52000-72	1	x								
	Track Ring 76"	K52000-76	1	x								
	Track Ring 80"	K52000-80	1	x								
	Track Ring 84"	K52000-84	1	x								
	Track Ring 88"	K52000-88	1	x								
	Track Ring 92"	K52000-92	1	x								
2	Shoulder Bolt Kit	9SS29561-18	2	x								
2A	Roll Pin	NSS	4	x								
2B	Bolt	NSS	4	x								
2C	Shim	NSS	4	x								
3	Track Shoe Kit	9SS30727	1	x								
3A	Track Shoe	9SS30520	1	x								
3B	Shoe Spring	9SS30534	2	x								
3C	Shoe Set Screw	9SS30526	2	x								
4	Shoe Extension 0.5" Kit	K52060-05	1	x								
4A	0.5" Shoe Extension	NSS	1	x								
4B	Socket Head Cap Screw	NSS	1	x								
5	Shoe Extension 1.0" Kit	K52060-10	1	x								
5A	1" Shoe Extension	NSS	1	x								
5B	Socket Head Cap Screw	NSS	1	x								
6	Shoe Extension 2.0" Kit	K52060-20	1	x								
6A	2" Shoe Extension	NSS	1	x								
6B	Socket Head Cap Screw	NSS	1	x								

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CUSTOMER ASSISTANCE POLICY

The business of The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for advice or information about their use of our products. We respond to our customers based on the best information in our possession at that time. Lincoln Electric is not in a position to warrant or guarantee such advice, and assumes no liability, with respect to such information or advice. We expressly disclaim any warranty of any kind, including any warranty of fitness for any customer's particular purpose, with respect to such information or advice. As a matter of practical consideration, we also cannot assume any responsibility for updating or correcting any such information or advice once it has been given, nor does the provision of information or advice create, expand or alter any warranty with respect to the sale of our products.

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