- Turner Motorsport Stainless Steel Brake Lines -

Even brand new rubber brake hoses can expand under pressure, resulting in a less dynamic pedal feel and increased stopping distances. This expansion can worsen as the rubber hoses begin to age. As the rubber ages it can break down and it may no longer be able to meet the high demands of the braking system, this can result in a dangerous situation as the hoses could burst and cause you to lose braking power. The solution? Turner Motorsport Stainless Steel Brake Lines. Our lines are fully compliant with DOT standards, and are completely designed, assembled, and tested in-house. Our lines feature a PTFE (Teflon™) core encased in a stainless steel woven mesh with a signature blue polymer coating. Our lines are built to last, they are highly resistant to corrosion and wear and look every bit as good as they perform. In this guide we will discuss the major differences between the stock rubber brake hoses and our stainless steel ones. We will provide helpful tips to help determine when it's time to upgrade as well as tips to help extend the longevity of your brake lines.

Stainless Steel Mesh:

- **A strong woven stainless steel mesh surrounds the core, this mesh is abrasion and impact resistant and expands far less under pressure, providing a much more dynamic pedal feel.**

Low-Profile Fittings:

- **We use special low-profile fittings which are Zinc-Nickel coated for maximum corrosion resistance and longevity.**

PTFE Core:

- **The core of our lines is constructed of PTFE (Teflon™) which is a durable, flexible, chemical resistant material which is far more durable than rubber and expands less under pressure.**

Polymer Coating:

- **Each line has a seamless bright blue polymer coating which protects the line from chemical and environmental attacks.**

Stock Brake Lines:

Construction: The inner core of a stock brake hose is usually made of a synthetic rubber compound, these compounds are cheap, flexible and fairly strong. The core is surrounded by a one or more layers of a fabric mesh that reinforces the core, limiting its expansion under pressure. The whole hose is then encased in a protective rubber coating. Metal fittings are inserted and crimped onto the lines to create a leak-free bond.

Assembly: Hoses are cut to length, then metal fittings are inserted and crimped onto the ends of the hose. The lines are pressure tested to ensure they can handle the high pressures of the braking system before being packaged.

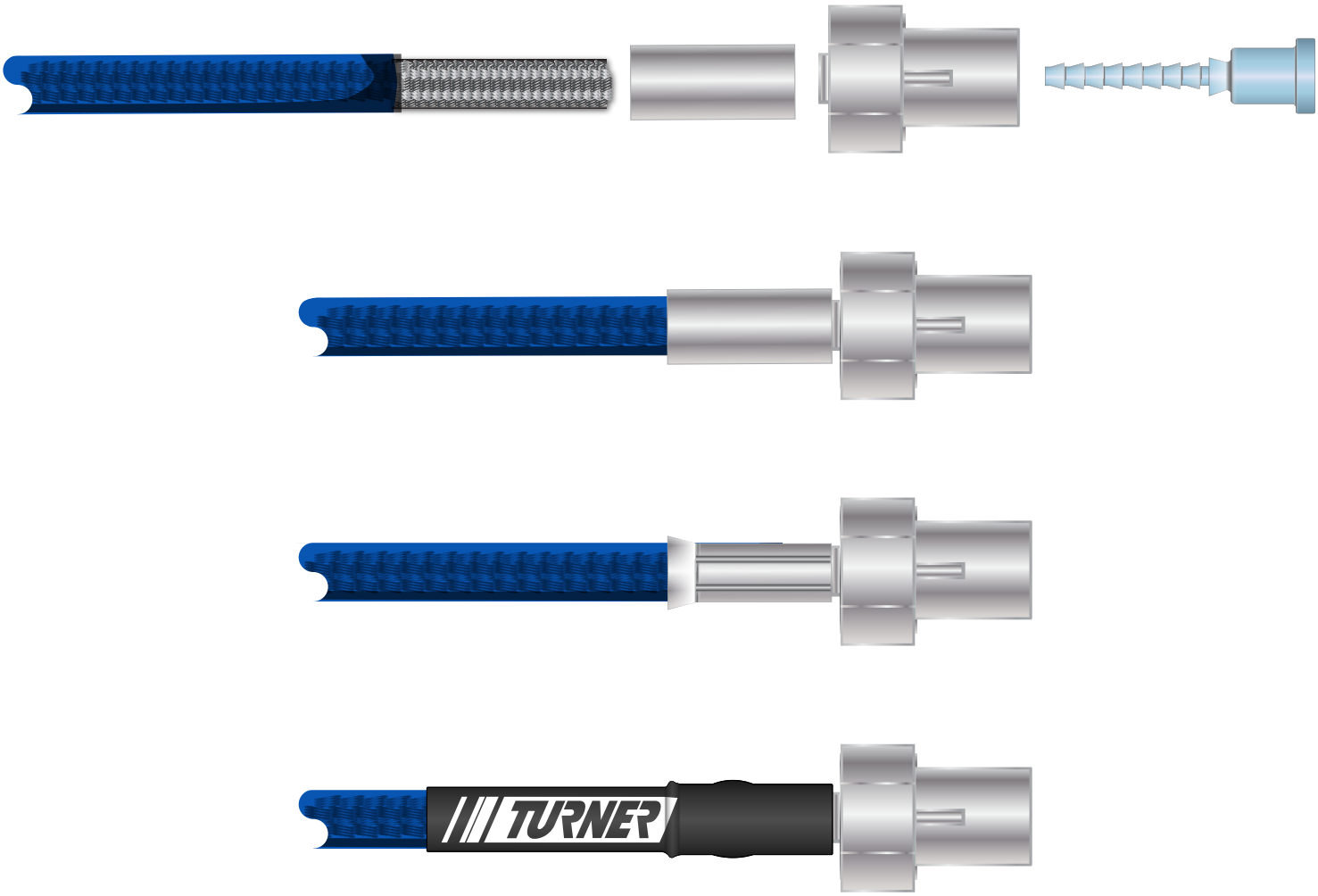
Durability: The outer rubber coating is effective at protecting the lines from harsh UV rays and other environmental attacks, however oils, gasoline, and other contaminants can penetrate the rubber and speed up the aging process. While the rubber hoses are extremely flexible and allow for expansion and movement, the continual twisting and flexing over time combined with these contaminants may weaken their structural integrity. The outer layer may stress or crack, allowing contaminants to penetrate the rubber and brake down the fabric mesh which reinforces the line. Debris and abrasives can easily puncture or cut through the rubber, causing an extremely dangerous loss of fluid.

Performance: Because of the flexible nature of the rubber, the lines may expand slightly when under pressure, which can create an undesirable soft or "spongy" feeling in the brake pedal.

Turner Brake Lines:

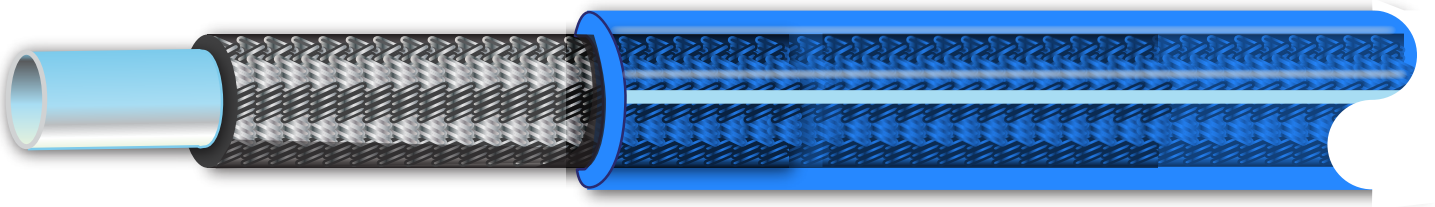
Construction: Our line features a PTFE (Teflon™) core which is far stronger than rubber, while still remaining flexible. The core is surrounded by a robust stainless steel mesh which provides for more protection and expansion resistance than a traditional fabric mesh. Our lines feature a signature blue polymer coating which protects against chemical and environmental attacks. Our corrosion resistant metal fittings are inserted and crimped onto the lines creating an extremely strong, leak-free bond.

Assembly: Hoses are cut to length, then the outer polymer is cut back slightly to expose the stainless steel mesh and a metal sleeve is slid over the end of the line. A barbed metal fitting is inserted through the model-specific fitting and into the PTFE core. The lines are crimped using a great deal of force, creating a strong physical bond between the fitting and the line. Heat shrink is applied to the crimped ends to further protect the lines from corrosion. The lines are then pressure tested to 3000psi before being packaged and shipped out.

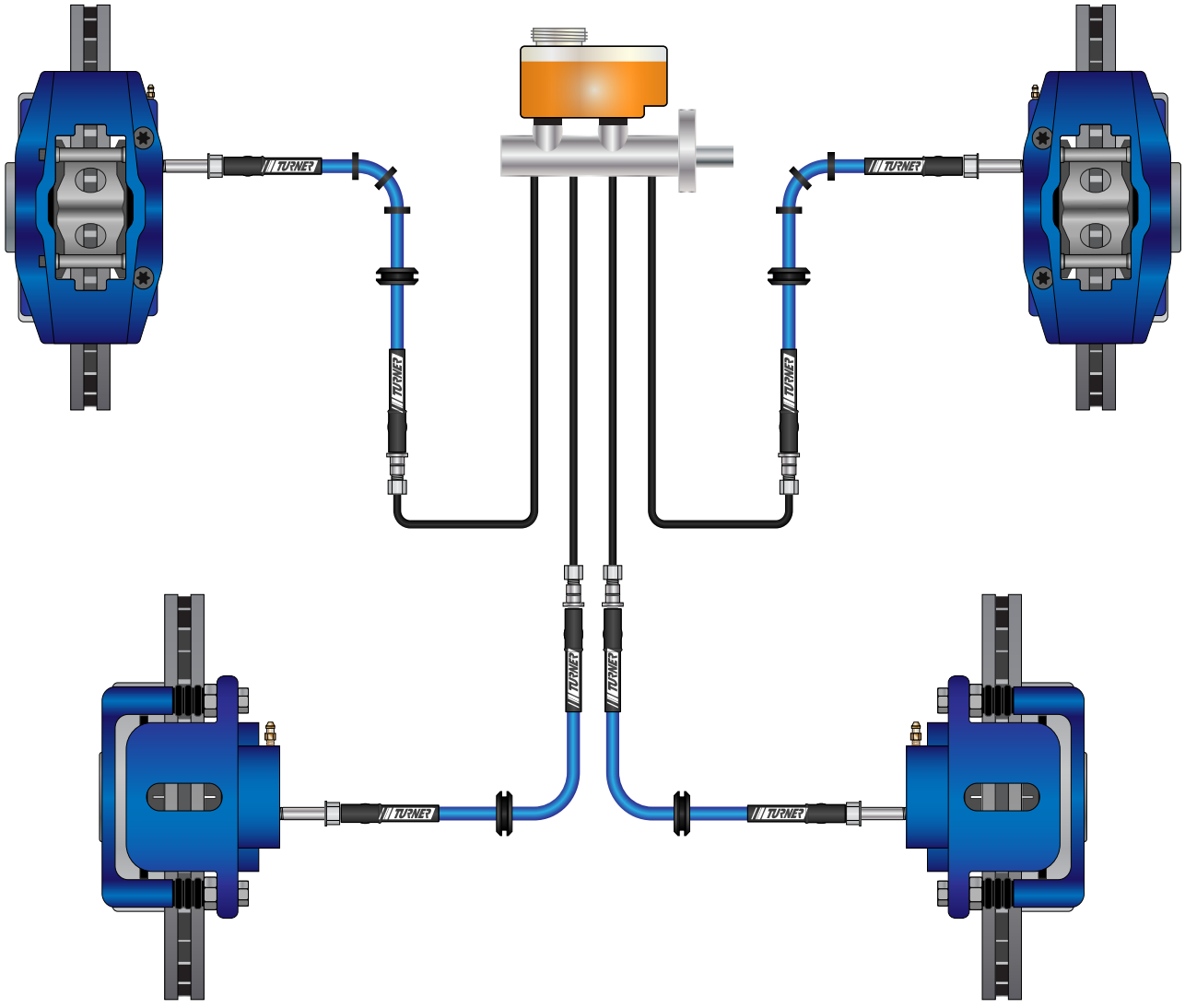


Turner Brake Lines:

Durability: The polymer outer coating on our lines is highly resistant to chemical and environmental contaminants. This polymer coating is both strong and flexible; it is able to withstand the constant twisting and flexing of the braking system without showing signs of stress or cracking. The stainless steel mesh protects the lines from impacts, debris and other abrasives which could pose a threat to the inner core. Unlike fabric mesh, stainless steel mesh does not stretch or degrade over time and can not be easily cut.

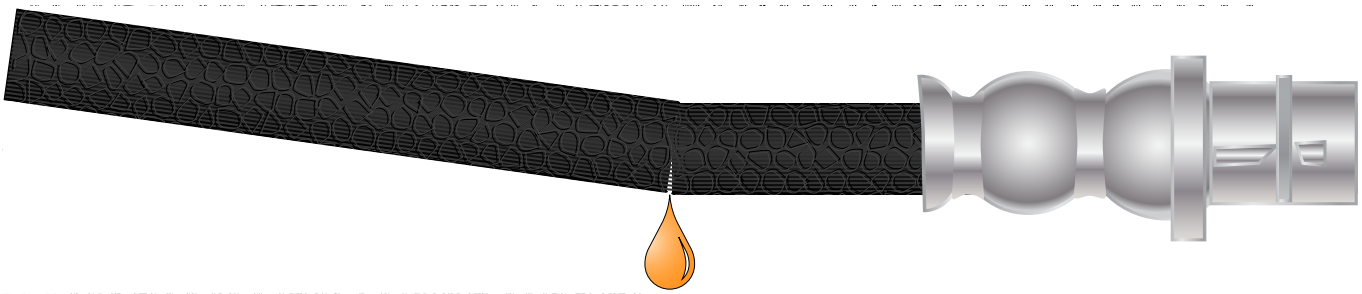


Performance: Our lines are designed to be a direct replacement for the stock lines, utilizing the stock mounting locations. The PTFE inner core provides a smoother tract for the fluid to pass through, and the stainless steel mesh prevents the core from expanding under pressure, leading to a stiffer and more dynamic brake pedal feel.



Time for an upgrade?:

Signs of wear: Inspect your hoses for any signs of cracking, flaking, leaking, or swelling. These are signs that the rubber is breaking down and could quickly lead to catastrophic brake failure. Always Inspect the mounting brackets as well, broken brackets could cause the hose to catch or rub on nearby components, causing damage. Check the hose for nicks, cuts, or wear, this could indicate that your hose is making contact with a nearby component or has been damaged by debris. Make sure you replace your hoses at the first sign of wear to prevent catastrophic brake failure, or every 100,000 miles as preventative maintenance.



Why upgrade?: Our lines are a direct replacement, utilizing the same mounting brackets and fittings as the OE hose, while providing many added benefits. They are built from high-quality materials and are designed to withstand many years of use and abuse. Each line features an attractive blue polymer coating which provides a great visual upgrade to your braking system as well. Our lines are FAR more resistant to the chemical and environmental attacks and debris that would damage the stock rubber hoses. You can rest easy with the peace of mind of knowing that each and every line that we sell has been pressure tested to extreme pressures surpassing 3000psi and comply with all DOT regulations. Our lines expand less under pressure than their rubber counterparts, leading to a far more firm, dynamic pedal feel.

Maintenance & Care: When upgrading your lines it is extremely important to completely flush your brake fluid system and refill it with fresh, manufacturer recommended brake fluid. When applicable, always use new seals or washers when installing new lines. Never use pliers to pinch off the line during service, as this will crush and deform the stainless steel mesh, causing significant damage to the core and weakening the structural integrity of the line. Never allow the weight of brake caliper to hang by the brake line, this can cause added stress to the line which can reduce it's lifespan.