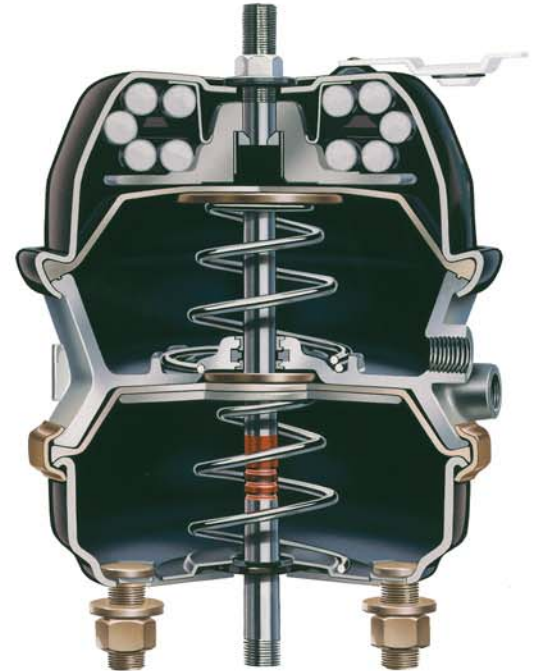


TR SERIES SPRING BRAKES

The Best
Choice
is the
Safe
Choice.



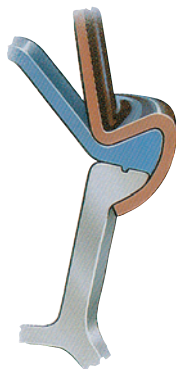
Safe Tamper-Resistant Designs

The TR Series gives you all the advantages you need to maintain braking reliability on today's heavy-duty vehicles. The TR sealed design does not require, or even permit, internal servicing, either in the maintenance shop or on the road.

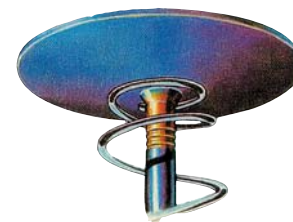
Unlike other designs with clamp-bolt access deterrents, the MGM Brakes patented design provides always centered diaphragm seating and controlled squeeze for the diaphragm sealing bead.

The heavy-gauge steel head is permanently "locked" to the center case, preventing any inadvertent disassembly of the power spring housing.

Permanently Locked Design
(U.S. Patent # 5,067,391)



The TR Series also features a number of important MGM Brakes innovations, such as the External Breather Tube on the TR-T, TR-THD, TR-TS and TR-TSHD models. It seals out solid and liquid contaminants from entering the housing. The **Stroke Alert** quickly identifies when 70 to 80 percent of the chamber stroke has been used. The Floating Center Hole Shield protects the service chamber from debris entering at the push-rod hole.



Stroke Alert

These problem-solving features bring more reliable and longer-life braking performance to your air-braked vehicle.

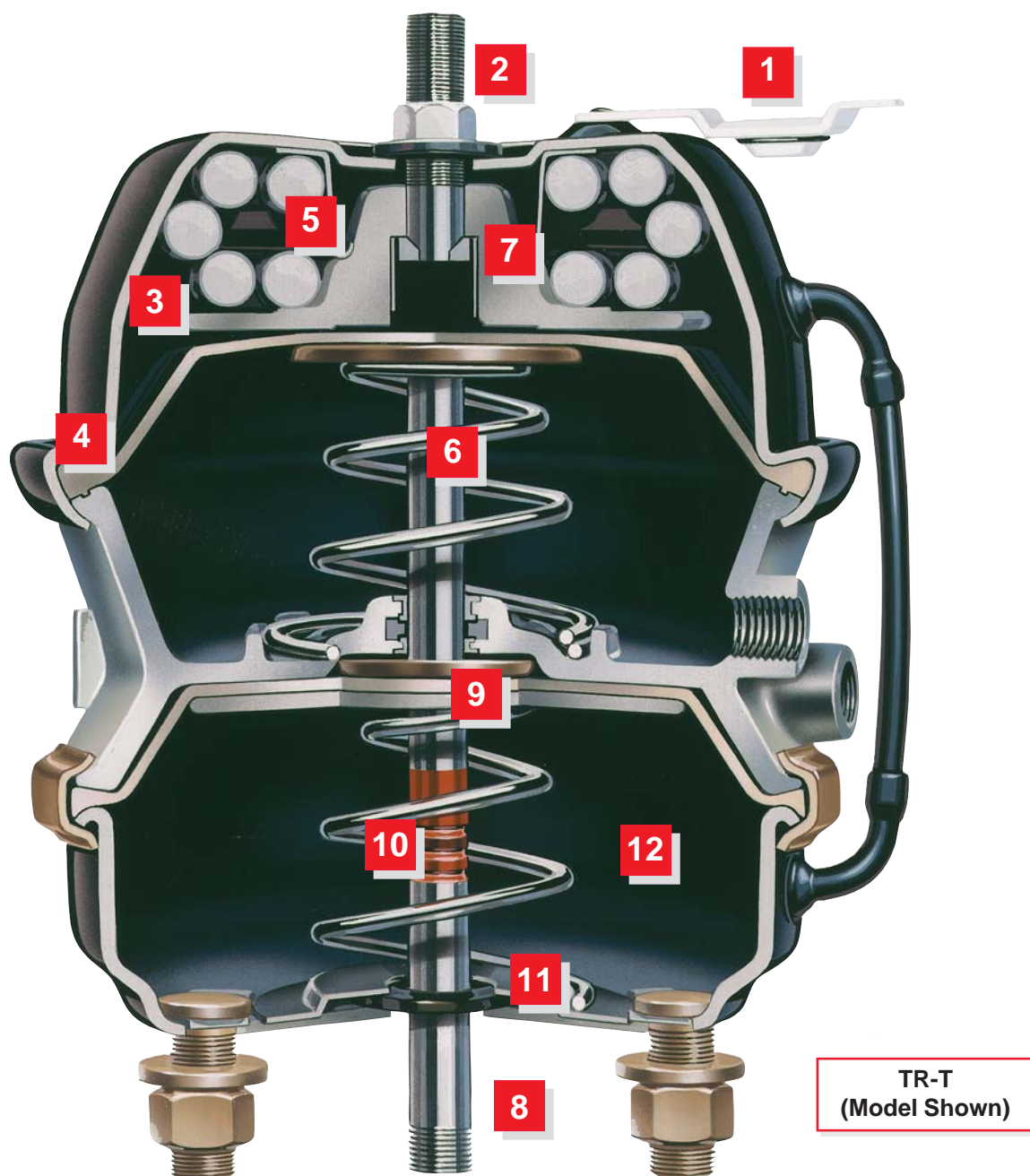
The TR Series offers the high tech design and performance that have made MGM Brakes the world's largest supplier of spring brakes for all air-braked vehicles.

These features are standard on all TR models:

- 1 Weatherseal End Cap** - attached to head for loss prevention. Features O-ring on TR-T, TR-THD, TR-TS and TR-TSHD models.
- 2 Release Tool** - conveniently stored, standard SAE threads.
- 3 Steel Head** - tapered for tight spaces, mechanically sealed (no clampband required), heat-cured epoxy finish.
- 4 Permanently Sealed Spring Chamber** - no clampband. Positively prevents inadvertent disassembly of power spring housing.
- 5 Power Spring** - heat fused, epoxy-coated and cycle test certified to OEM specifications. HD models have a Heavy-Duty power spring which generates 160 Lbs. of additional parking brake force at 1-1/4 inches of stroke.
- 6 Center Case Push-Rod** - aluminum hard coat finish and surface porosity to retain lubricants.
- 7 Piston and Guide** - non-stick for full release from applied position.
- 8 Service Push-Rod** - fully threaded for universal slack adjuster installation.

for the Transportation Industry

- 9** **Push-Rod Seal** - pressure-activated, ensures lubrication and positive air seal at stroke extension.
- 10** **Stroke Alert** - highly visible orange paint on black epoxy-coated push-rod.
- 11** **Center Hole Shield** - permits visual inspection of stroke alert yet still prevents entry of contaminants.
- 12** **Non-Pressure Chamber** - heavy-duty 8-gauge embossed steel (type 30) epoxy-coated for long life.



Single/Piggyback



Single/Piggyback Features:

- Replaces clamp-type spring brake chamber without removing complete assembly.
- Eliminates the need to size and cut service push-rod.
- Minimizes repair time, labor and cost.
- Service chamber adaptor case for all popular sizes.

Quality Tests

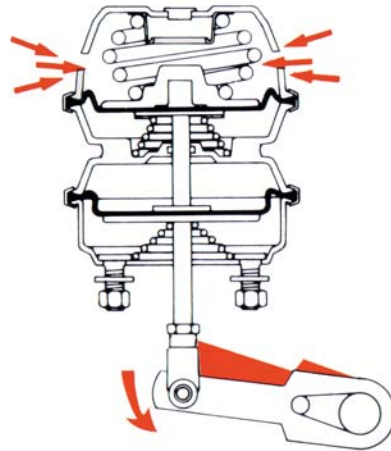
All spring brakes manufactured by MGM Brakes undergo a full range of performance and quality inspections including:

- Rapid cycle test
- Air seal pressure check
- Endurance/destruction evaluation
- Vibration and impact trials
- Environmental corrosion test
- Force output measurements
- Release and apply speed test
- Air displacement and recovery
- Simulated installation and operation

TR TR-T TR-TS TR-HD TR-THD TR-TSHD

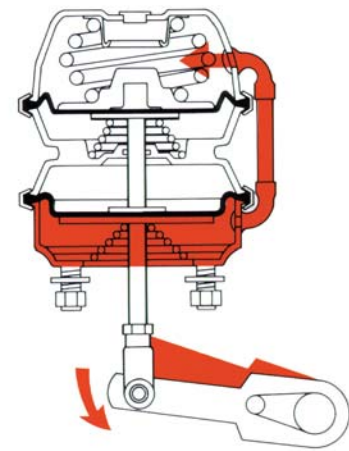
With the MGM Brakes External Breather Tube System (found on models TR-T, TR-THD, TR-TS & TR-TSHD)... the power spring chamber is "sealed" against any contaminated and corrosive outside air because 100% of the air drawn in originates from the inside protected area of the service brake chamber. The result is a spring brake that is CORROSIVE-FREE, proven in over 20 years of use on heavy vehicles of European origin equipped with MGM Brakes Europa spring brakes.

External Breather Tube System



Without Breather Tube

Outside air and contaminants enter the spring brake chamber through holes cast or drilled in the housing of other double diaphragm spring brakes.



With Breather Tube

MGM Brakes TR-T Series brakes recirculate air inside the service brake chamber to prevent contamination buildup and resulting corrosion damage.

The TR Series of spring brakes from MGM Brakes offers the industry an unparalleled variety of models perfect for nearly any application. Every TR model is tough and reliable because the whole line has been quality engineered to provide maximum value to our customers.

The advanced design of the TR Series includes an array of industry-leading features. *Permanently Sealed, Tamper-Resistant Spring Chambers* prevent disassembly for increased safety. The carefully designed *Centerhole Shield* does an excellent job of stopping contaminants from entering the service chamber. An orange colored *Stroke Alert* band on push-rods helps alert operators when brake service may be required.

Additional quality features of the TR Series include epoxy-coating on many parts for long-life corrosion protection, strong 360 aluminum alloy center cases, long-wearing polymer push-rod guides, temperature-resistant heavy-duty diaphragms, highly effective nitrile rubber push-rod air seals, convenient side mounted release tool storage pockets and extra-strength mounting hardware.

MGM Brakes TR models, the industry-standard double-diaphragm spring brakes, include all of the above features. TR-T models add an *External Breather Tube*, an MGM Brakes innovation which prevents liquid and solid contaminants from entering the power spring housing. TR-TS models, in addition to having the breather tube, are extensively treated inside and out with a tough epoxy coating, perfect for corrosive operating environments. TR-HD models have a heavy-duty power spring.



TR-TS
(Model Shown)

TR, TR-T, TR-TS, TR-HD, TR-THD, TR-TSHD

SIZES		2024	2424L	2430L	3024	3030	3036	3636	
Stroke (Inches)		2.25	2.50	2.50	2.50	2.50	2.50	3.00	
Combination (P/N)	TR	3420051	3427051	3429051	3434051	3430051	3433051	3437051	
	TR-T	3421051	3426051	3428051	3435051	3431051	3432051	3436051	
	TR-TS	N/A	3538051	3528051	N/A	3531051	3532051	3536051	
	TR-HD	N/A	N/A	(3624051)	N/A	(3630051)	N/A	N/A	
	TR-THD	N/A	N/A	(3625051)	N/A	(3631051)	N/A	N/A	
	TR-TSHD	N/A	N/A	(3526051)	N/A	(3533051)	N/A	N/A	
Single/Piggyback (P/N)	TR	3420001	N/A	N/A	3434001	3430001	N/A	3437001	
	TR-T	3421001	N/A	N/A	3435001	3431001	3432001*	3436001	
	TR-TS	N/A	N/A	N/A	N/A	3531001	N/A	N/A	
	TR-HD	N/A	N/A	N/A	N/A	(3630001)	N/A	N/A	
	TR-THD	N/A	N/A	N/A	N/A	(3631001)	N/A	N/A	
	TR-TSHD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Combination Weight (Lbs.)		15.9	16.6	18.5 (18.6)	18.3	11.6 (11.5)	26.5	30.8	
Single/Piggyback Weight (Lbs.)		9.6	9.5	11.6 (11.7)	9.7	9.04	18.3	20.2	
A		8.31	8.52	9.04	8.47	6.66	9.86	11.13	
B		6.16	6.36	6.91	6.12	8.31	7.52	8.38	
C		6.9	7.38	7.38	8.31	8.21	8.31	9.25	
D		7.34	7.34	8.21	7.34		9.18	9.18	
E		4.75"							
F		5/8" - 11 UNC							
G		5/8" - 18 UNF							
Inlets		3/8" - NPTF							
X Min.		8.00"							

Notes: (*) This model must be used only in combination with MGM Brakes heavy-duty weld-reinforced mounting base or 8-gauge non-pressure chamber (NPC).

- HD models have a Heavy-Duty power spring which generates 160 Lbs. of additional parking brake force at 1-1/4 inches of stroke.

- For specialty applications (i.e., transit bus, Hendrickson Intraax/Vantraax) see MGM Brakes Master Catalog (Form No. 6000ss).

- All product information and specifications subject to change without notice.

TR
(Model Shown)

Available From:

Factories in Cloverdale, California and Murphy, North Carolina



MGM Brakes
A Division of Indian Head Industries, Inc.

8530 Cliff Cameron Drive • Charlotte, NC 28269-9786
(704) 5477411 • (800) 527-1534 • (704) 547-9367 Fax

e-mail: mail@mgmbrakes.com • www.mgmbrakes.com

Form No. 5026 – Revised 2/04

©1992 MGM Brakes All Rights Reserved. Printed in U.S.A.