HALFEN®
ANCHORING SYSTEMS

GLAZING MASONRY CHANNEL STONE TENSION RODS

DETAN

TENSION ROD SYSTEMS

The DETAN Tension Rod System

The DETAN Tension Rod System is an aesthetically pleasing method of providing bracing or structural support. The DETAN system is manufactured from both carbon steel and stainless steel in a variety of sizes. Adjustment for length is hidden within the system and is provided without the use of turnbuckles or unsightly exposed threads.

The manufacture of every component in the DETAN system is permanently controlled and fulfills the requirements of the HALFEN Quality Management System, certified according to ISO 9001. The DETAN System has been type approved by the Inspection Board for Building Engineering LGA, Bavaria, Germany.

Product features:
- Easily adjustable for length
- Available in carbon steel and stainless steel
- Variety of standard finishes
- Type approved
- Sealing of the threads for corrosion protection available (optional)
- System diameters from 6 mm to 95 mm (1/4 in. to 3-3/4 in.). In stainless steel, up to 30 mm (1-1/4 in.)
- Load capacity up to 605.8 kips (2695 kN)

Carbon Steel System DETAN-S460

Available in nineteen diameters, the DETAN System is supplied in two carbon steel strengths:

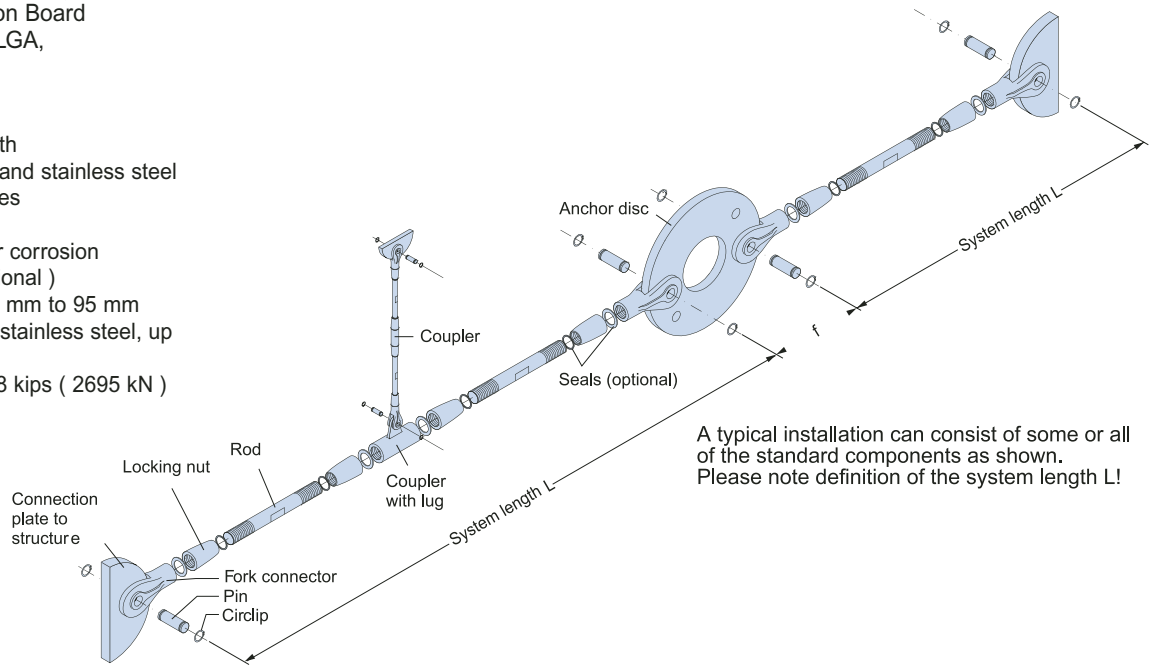
System diam. 6 mm to 12 mm (1/4 in. to 1/2 in.) yield strength = 51.5 ksi (355 MPa).

System diam. 16 mm to 95 mm (5/8 in. to 3-3/4 in.) yield strength = 66.7 ksi (460 MPa).

By using high grade steels the DETAN System is able to provide superior performance and economy, while saving material and weight.

Stainless Steel System DETAN-E

DETAN Tension Rod Systems in stainless steel are typically used in applications where a high resistance to corrosion is necessary, or where a polished finish is preferred. Stainless steel tension rods are available up to six meters (19'-8") long in 9 diameters, ranging from 6 mm to 30 mm (1/4 in. to 1 -1/4 in.). As with the carbon steel system, couplers and anchor discs may be used to extend the system when long spans are required.



A typical installation can consist of some or all of the standard components as shown. Please note definition of the system length L!

SYSTEM SELECTIONS

Material	Rod Ø [in.]	Components	Finish	System length L [mm]
Carbon Steel Stainless Steel	DT-S460: ds= **1/4"** to **3-3/4"** DT-E: ds= **1/4"** to **1-1/4"**	Rod + Connection Set — Anchor Disc 2 Rods + 1 Connection Set + 1 Coupler Set 2 Rods + 1 Connection Set + 1 Coupler Set with fin	Carbon Steel: **fv**=hot dip galv. Stainless Steel: **p**= polished	L If couplers are required, their positions within the system length should be specified.

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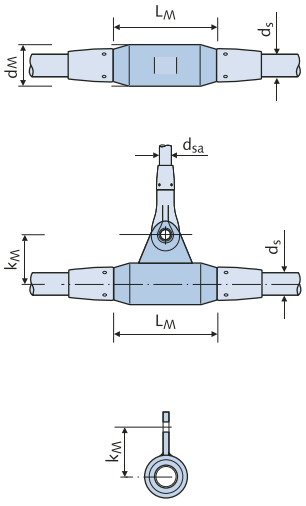
Tension Rod

Tension rods are supplied with one left-hand thread and one right-hand thread, to engage with corresponding left and right forks. Flattened section on the rod enables the use of a wrench to torque the rod for engagement and for length adjustment.

Couplers

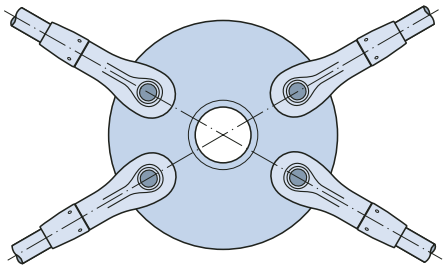
are used to join DETAN tension rods in applications requiring long spans. They also provide an additional option for adjusting the system for length. Each DETAN coupler is provided with two locking nuts. Sizes M12 (1/2") and above can be supplied with a welded fin to provide a hanger connection if required. Hangers can be used in long span applications to limit system deflection.



Anchor Discs

are another method for extending the span of the system, or they can be used to provide a central connection point for structures requiring cross bracing. A maximum of eight bars may be connected to each anchor disc.

Example: anchor disc with 4 tension rods



Connection Plates

are used to attach the system to the structure. They can be designed as fins for welding to steelwork or as T-brackets for bolting to the structure. Being part of the structure, connection plates are not furnished by Halfen. However, design guidelines and critical dimensions for connecting plates are available from Halfen. Please consult Detan technical catalog for detailed information on design and construction of plates.

Fork Connectors

provide an adjustable connection between the tension rod and connection plates on the structure or anchor discs. Each DETAN tension rod system has 2 fork connectors, one with left-hand and one with right-hand thread. Fork connectors can easily be identified by the color-coded end plugs that seal the fork ends from moisture penetration (yellow = right-hand, blue = left-hand thread). Combined with tapered locking nuts, they provide an aesthetically pleasing connection to the tension bar. Each fork connector is provided with a locking nut, a pin and two circlips.

HALFEN

LITERATURE AVAILABLE FROM HALFEN

GLAZING
- Multi-Adjustable Curtain Wall Clips
- Anchors for Glazing
- Top of Slab Bracket for Curtain Wall

MASONRY
- Adjustable Concealed Lintel Systems
- Anchors for Masonry
- Fleming Masonry Veneer Restraint System

STONE
- Anchors for Stonework
- HRM Stone Fixing Clips

PRECAST
- Anchors for Precast Panels
- Application Details Anchors for Precast
- Double Tee Stem Anchors

STAINLESS
- Halfen Products for Corrosive Environments

TENSION RODS
- Detan Tension Rod System

SOFTWARE
- AnkerCalc 1.1
- Anker CAD

TECHNICAL
- Dynagrip Toothed Anchor Channels
- Halfen Technical Manual (Anchor Channels, T-bolts & Profiles)

SPECS
- CSI 3-Part Specifications
- Product Data Sheets

Available Formats
- Hard Copy Catalogs
- CD-Rom
- Website

HALFEN® ANCHORING SYSTEMS
A division of Meadow Burke Products • P.O. Box 547 Converse, TX 78109
Phone: 800-323-6896 or 210-658-4671 • Fax: 888-277-1695 or 210-658-7908
halfen@meadowburke.com • www.halfenusa.com