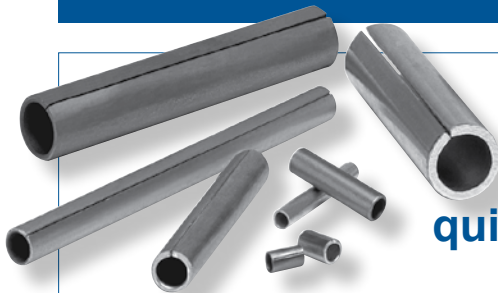


SPIROL®

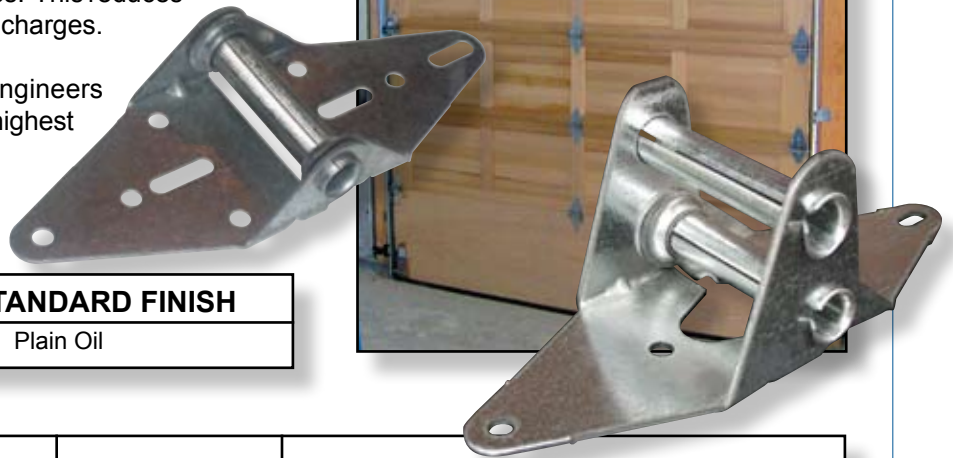
GARAGE DOOR SPACERS



Design-in **SPIROL's** corrosion-resistant Garage Door Spacers for the lowest cost, quick turnaround time, and improved quality.

SPIROL Standard Galvanized Steel Spacers

- Corrosion-resistant, lightweight and durable, these spacers cost less than cutoff tubing and plated parts.
- We shorten lead times through standardization of dimensions, standard raw material procurement, and the use of production machinery dedicated to standard sizes. This reduces costly setups and eliminates tooling charges.
- **SPIROL's** in-house application engineers consider your entire assembly for the highest quality at the lowest installed cost.



STANDARD MATERIAL	STANDARD FINISH
G Galvanized Steel	K Plain Oil

INCH SPECIFICATIONS

Nominal Bolt Size	ID		OD	Thickness	Lengths (as produced)						
	Min.	Max.	Ref.		1.00	1.25	1.50	1.75	2.00	2.50	3.00
0.437	0.463	0.483	0.563	0.039, 0.045, 0.071	1.00	1.25	1.50	1.75	2.00	2.50	3.00

- Refer to **SPIROL Spacers and Tubular Products** catalog to view our wide variety of standard spacer sizes for any of your spacer needs.
- Intermediate lengths, longer lengths and customized spacers for specific applications available upon request and feasibility review.

Save Money —

Reduce component costs...
We guarantee the lowest competitive pricing.

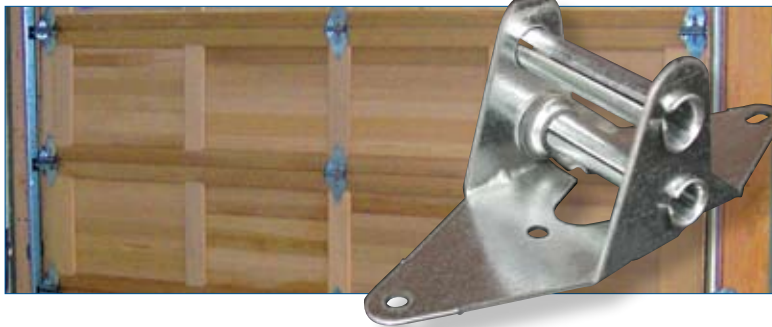
Save Time —

Cut long lead times...
Experience excellent delivery performance.

Make our Standards your Standards.
Design-in **SPIROL** Garage Door Spacers



Application Engineering



Application:

An OEM was manufacturing a complete assembly of a garage door hinge. They were using press technology to perform the stamping and another to create the butted seam Spacer. This type of manufacturing allowed a production of these Spacers to reach upwards of 150 pieces per minute. For years this method proved to be sufficient and cost effective, but demands grew higher, and decisions needed to be made. New fixtures and necessary maintenance was proposed at over \$18,000. An additional press was also being investigated to handle the increased volume. Along with the expense of this new machinery, limited floor space was presenting another obstacle.

At the same time, the customer was approached by **SPIROL** to present their standard roll formed Spacers. An application engineering review was opened immediately to determine if our "lowest cost solution" would work.

Solution:

Upon testing and review, the Spacer for this application was one of **SPIROL**'s 30,000 standard-off-the-shelf products. By utilizing our proprietary roll forming technology, over 300 Spacers could be made per minute. This was double the customer's production rate, therefore, the unit price was much lower than their in-house manufactured parts. By switching to our standard Spacers, the customer benefited from readily available stock, extra savings through mass material buys, and no need to invest in capital for the in-house manufacturing of Spacers.

SPIROL's value originated from the roll forming process where parts are fabricated from strip steel with no scrap or shavings. For over 60 years we have made our Engineering Department available to work with you to find the common goal of lowest installed cost.

Challenge Us!

SPIROL Application Engineers will review your application needs and work with your design team to recommend the best solution. One way to start the process is to select **Spacing Applications** in our **Optimal Application Engineering** portal at www.SPIROL.com.

U.S.A. **Spirol International Corporation**
30 Rock Avenue
Danielson, Connecticut 06239
Tel. 860.774.8571 Fax 860.774.2048

Spirol West Inc.
1950 Compton Avenue, Unit 111
Corona, California 92881-6471
Tel. 951.273.5900 Fax 951.273.5907

**Spirol International Corporation
Shim Division**
321 Remington Road
Stow, Ohio 44224
Tel. 330.920.3655 Fax 330.920.3659

Spirol Distribution
30 Rock Avenue
Danielson, Connecticut 06239
Tel. 800.321.4679 Fax 860.774.0487
(For Distributor Customers)

Canada **Spirol Industries, Ltd.**
3103 St. Etienne Boulevard
Windsor, Ontario
Canada N8W 5B1
Tel. 519.974.3334 Fax 519.974.6550

Mexico **Spirol México, S.A. de C.V.**
Carretera a Laredo KM 16.5 Interior E
Col. Moisés Saenz
Apodaca, N.L. 66613 México
ó Apdo. Postal 151 de Apodaca, N.L.
Tel. (81) 8385 4390 Fax (81) 8385 4391

Europe **Spirol Industries, Ltd.**
Princewood Road
Corby, Northants
England NN17 4ET
Tel. 44 (0) 1536 444800
Fax 44 (0) 1536 203415
(For Distributor Customers)
Tel. 44 (0) 8003 890034

Spirol SAS
Rue Henri Rol Tanguy
Z.A. Les Naux
51450 Bétheny
France
Tel. 33 (0)3 26 36 31 42
Fax 33 (0)3 26 09 19 76

Spirol GmbH
Brienner Strasse 9
80333 Munich
Germany
Tel. 49 (0) 931 454 670 74
Fax. 49 (0) 931 454 670 75

Asia Pacific **Spirol International Engineered
Fastener Trading Co. Ltd.**
No. 11 Xi Ya Rd. North
Section A, 1F, Building 14
Wai Gao Qiao Free Trade Zone
Shanghai, China 200131
Tel. (8621) 5046 1451/1452
Fax (8621) 5046 1540

e-mail: info@spirol.com

SPIROL.com