

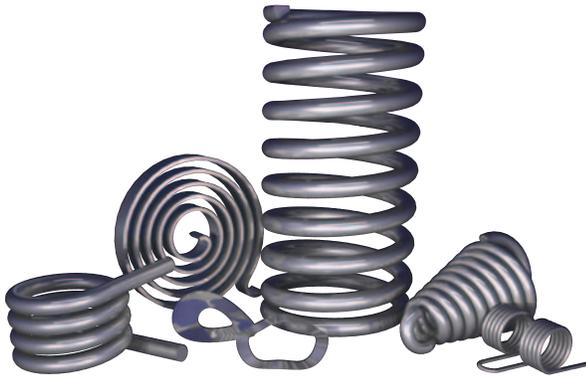
Advanced Spring Design (ASD) software is a jointly developed product by Universal Technical Systems and the Spring Manufacturers Institute (SMI) that combines engineering expertise with customized calculations to help you design quality springs.

Fast and Easy

Advanced Spring Design has been built in a completely graphical environment with convenient and automatic unit conversion as well as easy access to dynamic plots and reports. It also includes a materials database that can be added to by users, a profile system for saving and incorporating frequently used input data sets, exportable DXF drawings, and 3D viewing; everything you need to make the most productive use of your design time!

Versatile and User-Friendly

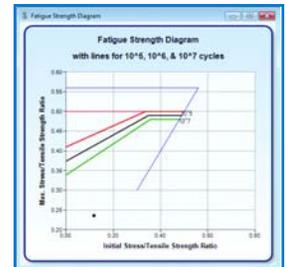
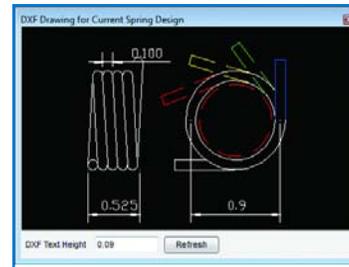
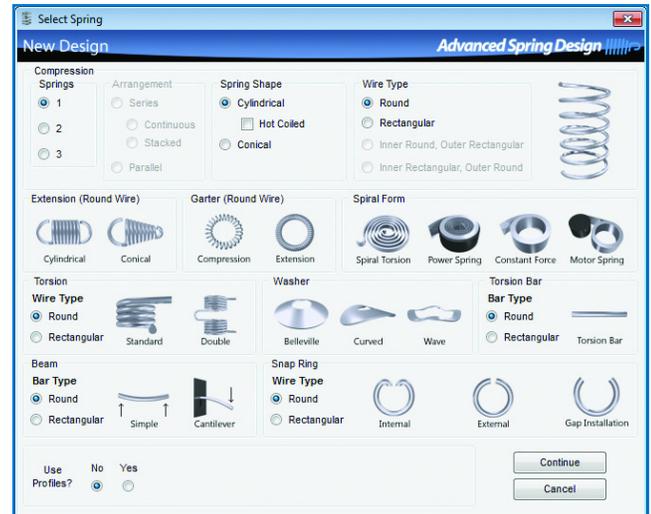
Advanced Spring Design version 7 covers a total of 47 spring types or loading options and includes compression springs, extension springs, spiral forms, torsion springs, garter springs, snap rings, washers, beams, and torsion bars. New for *ASD7* are variable pitch and rate compression springs as well as nested springs. There are a number of pre-formatted plots and reports available. The SMI *Encyclopedia of Spring Design* is now included as part of the context-sensitive help, providing diagrams, tables and background information on the many variables involved in spring designs.



Reliable Solutions to Complex Equations

Advanced Spring Design leverages the *TK Solver* collaborative math engine that has the unique ability to solve for a variety of combinations of input and output variables—known as backsolving. This makes it easy to test goal-seeking scenarios based on industry-specific parameters, to optimize your designs without hours of tedious calculations or programming. Just point, click, and solve! You'll get reliable results and quality designs faster than ever before.

ASD is sold on an annual subscription basis. Visit www.uts.us.com for more information on this and a host of other high-productivity problem-solving software products and custom-developed solutions.



Compression Spring - Cylindrical - Round Wire

Material: Music Wire

Hand: Optional Right Left

Grade: Commercial Precision

End Type: Closed Ground

Condition: Preset Peened

Input / Output Scenarios: Power User Two Load One Load Rate Based Dimensional Min. Weight

Wire Diameter: 0.1000 in

Wire Dia. Tolerance: 0.0008 in

Wire Length: 21.4315 in

Wire Weight: 0.04780 lb

Minimum Tensile Strength (MTS): 270866 psi

Spring Rate: 35.5294 lbf/in

Spring Index: 9.0000

Natural Frequency: 313 Hz

Coil Arbor Diameter: 0.6980 in

Coil ID: 0.8000 in

Coil Mean Diameter: 0.9000 in

Coil OD: 1.0000 in

Coil Dia. Tolerance: 0.0350 in

Min. Coil ID (Free): 0.7650 in

Shaft Diameter: in

Hole Diameter: in

Active Coils: 5.550

Total Coils: 7.550

Dead Coils: 0.0000

Pitch: 0.3063 in

Pitch Angle: 6.1830 deg

Free Length Tolerance: 0.0946 in

Allowable Solid Length: in

	Free	Minimum Cycle Load	Maximum Cycle Load	Other Load	At Solid	At Buckle
Load	0	12,000	24,000		40,681	lbf
Load Tolerance	0	3,6490	3,9370			lbf
Length	1,9000	1,5623	1,2245		0,7550	in
Deflection	0	0,3377	0,6755		1,1450	in
% of Max. Deflection	0	29,5	59,0		100	
Corrected Stress	0	31960	63919		108346	psi
Corrected % of MTS	0	11,8	23,6		40,0	
Uncorrected Stress	0	27502	55004		93234,5028	psi
Uncorrected % of MTS	0	10,1534	20,3067		34,4209	
Expanded Coil OD		1,0375	1,0397		1,0426	in

About Universal Technical Systems, Inc.

Universal Technical Systems, Inc., established in 1984, is the leading provider of high-productivity problem-solving software products and custom developed solutions. With headquarters in Rockford, Illinois and subsidiaries in the UK and India, UTS serves customers worldwide. For over twenty-five years, UTS has focused exclusively on providing solutions that help companies in the scientific, engineering, operations research and management, and financial communities simplify complex calculations and streamline the processes that drive their businesses. UTS products and custom solutions are available for desktop and web use.

About The Spring Manufacturers Institute

Founded in 1933, SMI is an association of manufacturers of precision mechanical springs and their associate suppliers. The members of SMI work together to meet the key issues of the industry worldwide: quality, materials, technology, and government regulations.

Universal Technical Systems, Inc., 4053 North Perryville Road, Loves Park, IL 61111, USA
Tel: +1 815-963-2220 • Fax: +1 815-963-8884 • sales@uts.com

Universal Technical Systems (Europe), Ltd.,
2 Richmond Road, Bedford, MK40 3DG, UK
Tel: +44 (0) 1234-302-618 • Fax: +44 (0) 1234-296-587 • euro@uts.com

Universal Technical Systems (India), Pvt. Ltd., 1 - B, Rohit Residence,
S.No 1 - 1A/1,2,3 Baner Road, Pune 411045, Maharashtra State, India
Tel: +91 20-2729-0306 • +91 93716-12493 • sales_india@uts.com

