



# CTS DROP-EAR 90° ELBOW

CTS-2A-0298

Would you drive nails or screws into a plastic fitting?  
We don't think you should have to . . .



## Fully Integrated One-Piece Construction

Permanently assembled plastic fitting and zinc alloy bracket integrate the strength of metal with the many benefits of CPVC. No water-contact metals, gaskets, or special adapters. One-piece fitting maintains corrosion resistant thermoplastic system integrity.

## Rigid, Non-Stress Mounting & Support

Separates installation stress concentration from the fitting. Eliminates mounting fatigue failure while providing solid support of fitting for threaded connections.

## Spears Patented SR Technology

Reinforced, pre-compression female plastic threads resist and contain radial stress generated during make-up of tapered pipe thread joints.

## NSF Certified to ASTM D 2846 for Hot-and-Cold Water Distribution Systems

NSF Certified and tested to ASTM D 2846 for use in potable water systems of 100 psi at 180°F.

Installation of conventional plastic drop ear fittings with nails or screws concentrates stress on the fitting body which can result in failure over time. Spears integrated metal bracket assembly not only eliminates mounting stress, but provides non-stress support for installation of threaded fixtures. Specially designed for Shower Head installations, this patented Drop Ear 90° Elbow combines Spears SR plastic thread technology with an anti-stress mounting design to produce a rigid, reliable female plastic threaded fitting for use in all plumbing drops.

## Excellent Plastic-to-Metal Transition for All Plumbing Drop Applications

- Shower Heads
- Lavatories
- Toilets
- Washer Hookups
- Kitchen Sinks
- Dish Washers
- Hose Bibs



**PROGRESSIVE PRODUCTS FROM  
SPEARS INNOVATION &  
TECHNOLOGY**



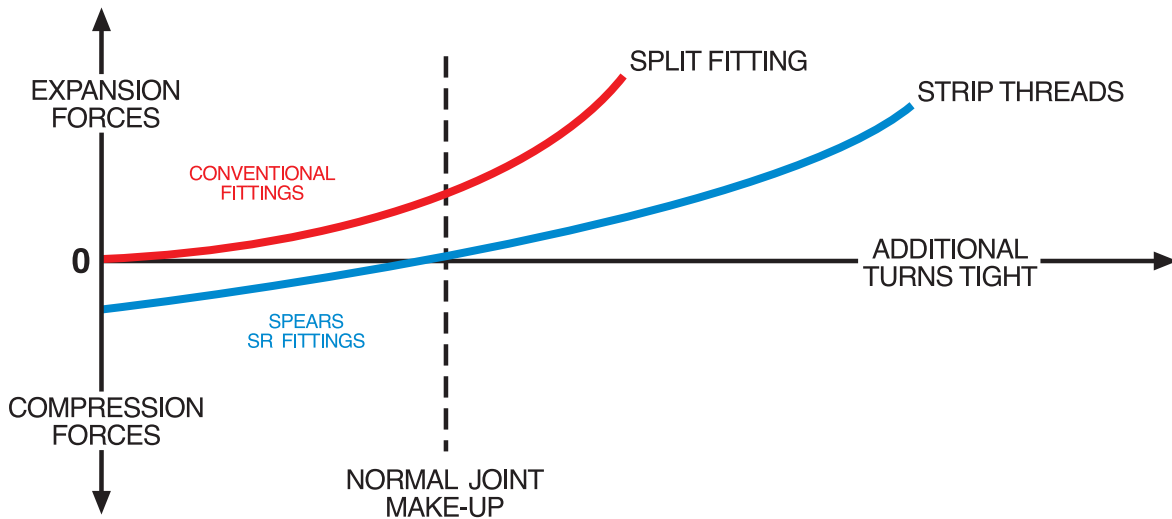
Quality Systems Certificate No. 293  
Corporate Facilities, Sylmar, CA  
Assessed to ISO 9001

## Sample Engineering Specification

All Drop Ear 90° Elbows shall be Copper Tube Size Steel Reinforced (SR) Plastic Thread design with metal mounting tabs, constructed from CPVC Type IV, Cell Classification 23447. All Drop Ear 90° Elbows shall be certified for potable water use by the National Sanitation Foundation (NSF). All Drop Ear 90° Elbows shall be manufactured in strict accordance with ASTM D 2846, as manufactured by Spears Manufacturing Company.

## SPEARS Patented SR Design is One of the Most Significant Improvements in Threaded Thermoplastic Fittings . . .

Radial stress generated by tightening of tapered pipe threads exerts tremendous expansion forces on female plastic thread fittings. When subjected to over-tightening — even accidentally — these forces can literally split the fitting. Spears patented SR design not only alleviates this problem by containing expansion forces with its metal reinforcing collar, but additionally compensates for expansion stress through thermoplastic material compression. Stresses are equalized at normal joint make-up. The following graph illustrates the result of this effect in a comparison of conventional plastic female thread fittings with Spears SR design when taken to failure.



**WARNING: THE USE OF COMPRESSED AIR OR GASES FOR TESTING MAY RESULT IN SYSTEM DAMAGE OR SERIOUS OR FATAL BODILY INJURY.**



## SPEARS® MANUFACTURING COMPANY

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