General Information
Liability:
The Company guarantees its products as shipped from the factory and when used within the scope of this leaflet. These products are, however, intended for use by qualified and experienced workers. Even slight misuse or lack of supervision and inspection can contribute to serious accidents. All unusual applications should be carefully tested before gneral use. The end user of the product must evaluate the product application and determine the appropriate safe working load. Safety factors as shown are approximate. Safe working loads should never be exceeded.

Reserved Rights: The Company reseres the right to limit the sale of certain products to only those customers deemed knowledgeable in the use of these products. Should product improvement or additional safety considerations require the modificiation of design or load rating of any product, The Company reserves the right to change such standards at any time without prior notice to the users.

Competitive Product Use: The Company cannot guarantee that similar products from competitive systems will be inter-changeable with our products.

Arc Welding: The Company cannot guarantee any of its products which have been field welded or bent.

Working Parts: The end user is responsible for the on-going inspection of accessory hardware. The Company will not guarantee the use of any threaded accessory that is excessively worn through use. Specifically, The Company will not warrant the use of bolts that have been re-straightened and/or have been subjected to first time loads of 50% of their ultimate strength. Further, The Company will not warrant the use of any bolt that has been tightened with animpact wrench.

Warranty: The Company will refund the price of or replace, at its election, any product whic it finds to be defective provided the product has been used properly. EXCEPT AS EXRPESSLY STATED ABOVE, THE COMPANY MAKES NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE NOR DOES IT MAKE ANY WARRANTY, EITHER EXPRESSED OR IMPLIED, OF ANY NATURE WHATSOEVER WITH RESPECT TO THE PRODUCT OR THE USE THEREOF. IN NO EVENT SHALL THE COMPANY BE LIABLE FOR DELAY CAUSED BY DEFECTS, FOR LOSS OF USE, FOR INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES, OR FOR ANY CHARGES OR EXPENSES OF ANY NATURE INCURRED WITHOUT ITS WRITTEN CONSENT. THE FOREGOING IS THE FULL EXTENT OF THE RESPONSIBILTY OF THE COMPANY EVEN THOUGH THE COMPANY MAY HAVE BEEN NEGLIGENT.

Safety Notes: The safety factor to be applied to a particular product is a variable, depending on the degree of hazard or risk involved in the application of that product. In concrete construction, various job site conditions can often increase the degree of risk. Concentrated loads of reinforcing bars, storage of construction materils on the formwork, asymmetric placement of concrete, uplift, impact of machine delivered concrete, use of motorized carts and formwork height are some of the conditions that have high risk factors. Safety factos must be increases accordingly by the user to reduce these risks. The company recommends that the provisions of the American National Standard Institute (A.N.S.I.A. 10.9), Occupational Safety and Health Administration (O.S.H.A., Part 1910) and the American Concrete Institute's "Recommended Practice for Concrete Formwork (A.C.I. 347R-88) be strictly followed when considering safety factors. It is for this reasion that we state the safe working loads of our products and only the approximate minimum safety factor. We especially advise that the minimum safety factors listed below be adhered to. When there are unusual job conditions such as shock, impact or vibration, these minimum safety factors must be increased by the user.

Minimum Safety Factors of Formwork Accessories

Accessory	Safety Factor	Ultimate Load
Flat Tles	2 to 1	6000 lbs.
Flat Tles	2 to 1	6000 lbs.
Wire Ties	2 to 1	6000 lbs.
Hardware	2 to 1	6000 lbs.

Type of Construction
Light formwork, 8ft. or less in height with no hazard to life.
WARNING: SERIOUS INJURY OR DEATH MAY RESULT FROM SAFETY HAZARDS CAUSED BY IMPROPER USE OR INSTALLATION.

Technical Information
Form Tie Load Determination Chart
Lateral pressure per square foot of form influencing tie. (based on ACI Committee 347 pressure formulae*)

Rate of Placement (ft./hr.)	Temperature of Concrete, in Degrees Fahrenhei					
	90˚	80˚	70˚	60˚	50˚	40˚
1	250	262	278	300	330	375
2	350	375	407	450	510	600
3	450	488	536	600	690	825
4	550	600	660	750	870	1050
5	650	712	793	900	1050	1275
6	750	825	921	1050	1230	1500
7	850	938	1050	1200	1410	1725
8	881	973	1090	1246	1466	1795
9	912	1008	1130	1293	1522	1865
10	943	1043	1170	1340	1578	1935

EXAMPLE: Use of 6000 # ultimate strength system (= 3000 # s.w.l. at 2:1 safety factor):
In this example, the concrete temperature is 60°F and the rate of placement is to be 4 ft./hr..
From the chart, see that the lateral pressure will be 750 lbs. per square foot. To determine the maximum square feet of coverage per tie, divide the weight per square foot into the safe working load.
3000 # s.w.l.

= 4 sq. ft.
750 # per sq.
Hence, in this example, each tie could cover 4 sq. ft., a common layout for which would be "24 inches on center".
*NOTE: These forumale assume use of standard concrete with no admixtures and a slump of no more than four inches.