

SHAPE & SIZES IS VERY IMPORTANT IN STEEL.

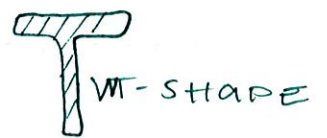
CARBON - LIGHT & STRONG  
STEEL - HEAVY & STRONG

MATERIALS ARE IMPROVING

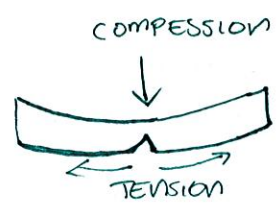
SOHO - CAST IRON

CAST IRON

↓  
WROUGHT IRON



T-SHAPE



COMPRESSION

TENSION



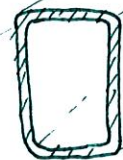
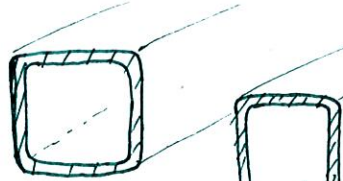
TENSION & COMPRESSION



S-SHAPE (AMERICAN STANDARD)



C-SHAPE (AMERICAN STANDARD CHANNEL)



• STRUCTURAL TUBING (SQUARE OR RECTANGULAR)

\* STEEL SHAPE / SIZE DESIGNATIONS

W21 X 83

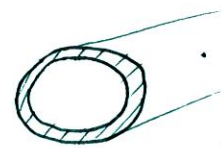
21 → NOMINAL DEPTH

83 → LBS/FOOT LENGTH

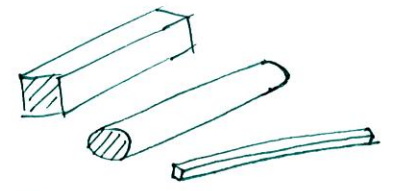
L4 X 3 X 3/8

4 X 3 → NOMINAL DEPTH OF EACH LEG

3/8 → THICKNESS OF THE LEGS



• STRUCTURAL TUBING (CIRCULAR PIPE)



• BARS (SQUARE, ROUND, & FLAT)

SHAPES:

- REFER TO THE AMERICAN INSTITUTION OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION FOR COMPLETE LISTING OF SIZES & WEIGHTS