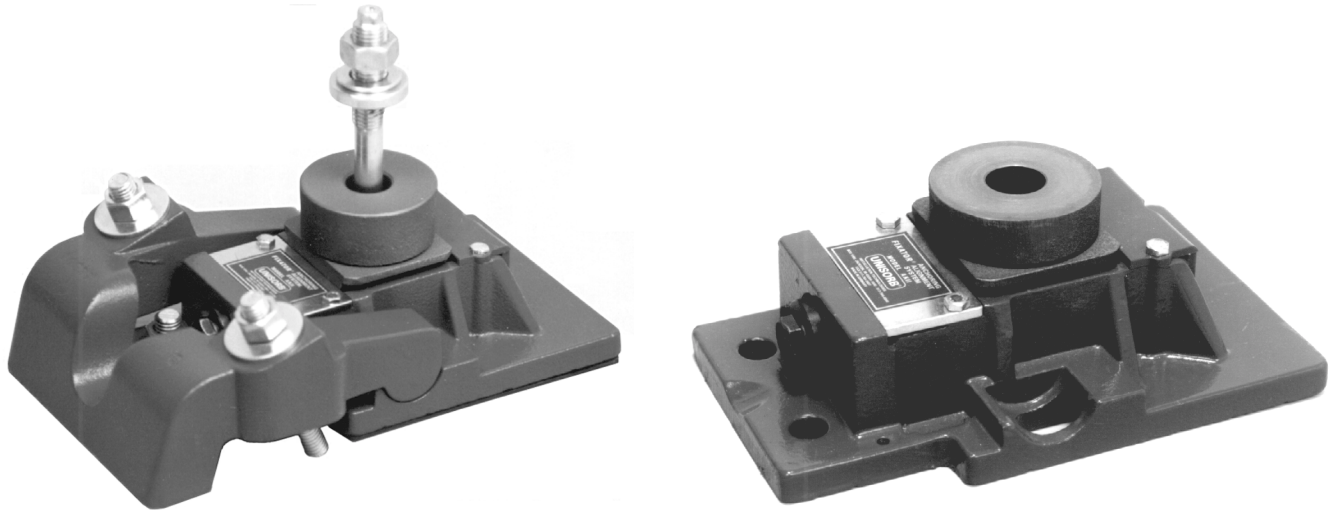


# AK FIXATOR<sup>®</sup> SYSTEM

## AK FIXATOR<sup>®</sup> DESCRIPTION

AK1



UNISORB<sup>®</sup>S Model AKII Agile Fixator<sup>®</sup> Mount has been developed specifically to meet industry's demand for a cost effective, truly "agile," machinery installation system.

The AKII Agile Fixator<sup>®</sup> Mount is intended for use in anchorless or anchored applications and offers the capability to be quickly converted from one to the other without disturbing or removing the machine base. The system can be used with resilient pads of varying stiffness and thickness to produce the vibration isolation load deflection characteristics required by the machine builder or user.

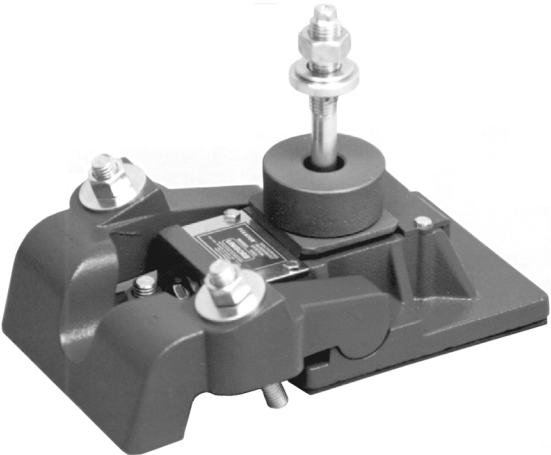
The AKII Agile Fixator<sup>®</sup> Mount's basic design incorporates the well-proven adjusting mechanism and

clamping nut torque retention system of the Fixator<sup>®</sup> into an updated overall mount design that permits installation in any of six fundamentally different ways. (See Figures 1 thru 6 on pages AK3-1, AK3-2 and AK3-3.)

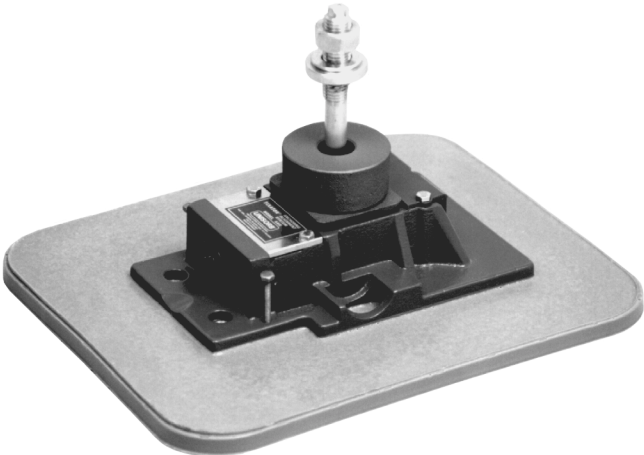
The system may be easily converted to an anchored variation if required at a later date by the simple application of one of the three available anchoring techniques.

Pre-layout or core drilling is not required as the anchor holes are simply drilled through the mount base after installation. The use of the optional toggle clamp permits this to be accomplished even when overhanging machine components prevent access to the center or side anchor locations.

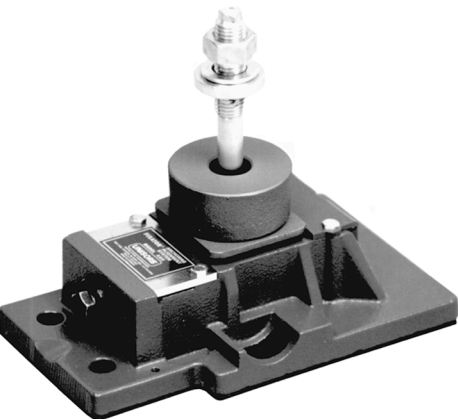
- *No special foundation requirements.*
- *Final installation approach may be determined on the job site.*
- *The necessity for anchor layout drawings is eliminated.*
- *Core drilling is eliminated (unless preferred).*
- *Anchored and non-anchored locations may be intermixed where necessary and are served by the same mounting system. Only one system needs to be specified.*



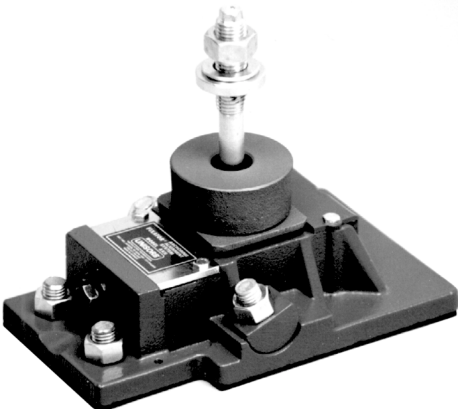
See Figure 4



See Figure 6



See Figures 1, 2 & 5



See Figure 3

AKII AGILE FIXATOR® SYSTEM SPECIFICATIONS	
Description	Dimensions
Recommended machine dead weight	4,400 lbs.
Maximum allowable lifting load per Fixator®	26,500 lbs.
Spring Constant	22,800,000 lb./in.
Minimum available overall height	3.31 in.
Approximate torque required to turn adjusting screw	1 ft. lb./1000 lbs. load
Maximum allowable torque on adjusting screw	29 ft. lb.
Vertical adjustment per revolution of height adjusting screw	0.010 in.
Maximum vertical adjustment	0.200 in.
Minimum height with v = 84 Spherical Seat	3.31 in.
Minimum height with v = 95 Spherical Seat	3.74 in.
Minimum height with v = 101 Spherical Seat	3.98 in.
Minimum height with v = 107 Spherical Seat	4.21 in.
Total overall height range with standard components	1.10 in.
Base area of basic unit	59.4 sq. in.
Weight of basic unit	19.2 lbs.
Weight of Toggle Clamp	13.4 lbs.
Approximate torque on anchor bolt nut at yield point of bolt	217 ft. lbs.
Approximate tension on anchor bolt at yield point	19,800 lbs.
Anchor specifications with uplift resistance:	
With side anchors	19,800 lbs.
With Toggle Clamp	12,000 lbs. max.
With 'wes' center anchor	19,800 lbs.
With 'wcs' center anchor	12,000 lbs.
Resilient pad specifications:	
Stiffness with 6 mm thick pad	2,000,000 lbs./in. min.
Stiffness with 2 mm thick pad	6,000,000 lbs./in. min
Coefficient of friction	>0.7
Internal damping coefficient	>0.15

Figure 1.

This method of installation simply sets the AKII Agile Fixator® on the Opt. 'Y' Resilient Pad. The pad has a coefficient of friction of approximately .70 which will quite effectively prevent the Fixator® from walking. The pad is available in either a 2 mm or 6 mm thickness. The standard pad is supplied in 90 durometer, but different durometers are available on a special order basis (contact Unisorb Engineering). An Opt. 'STE' Hold Down Stud is used to secure the Fixator® to the machine foot. This method should be used when some degree of vibration isolation is desired, and when extremely close tolerances are not a consideration.

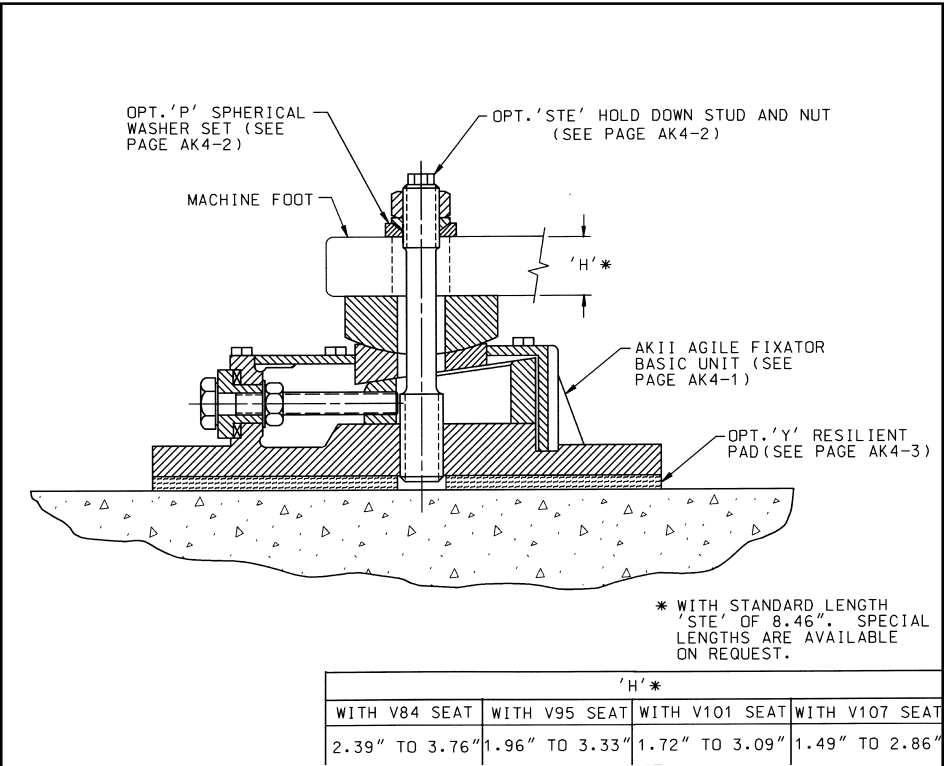


FIGURE 1. 'STE' CENTER BOLT - FREE STANDING

Figure 2.

This method of installation utilizes Unisorb® Adhesive V-100 Epoxy Grout applied beneath the Fixator®. Please note that a minimum thickness of .09" is recommended. This method also uses the Opt. 'STE' Hold Down Stud. This stud is capable of stretching to allow adjustment after the anchor nut is tightened. This method provides a simple and inexpensive, relatively secure installation without disturbing the floor. Please note that this method provides no option for vibration isolation.

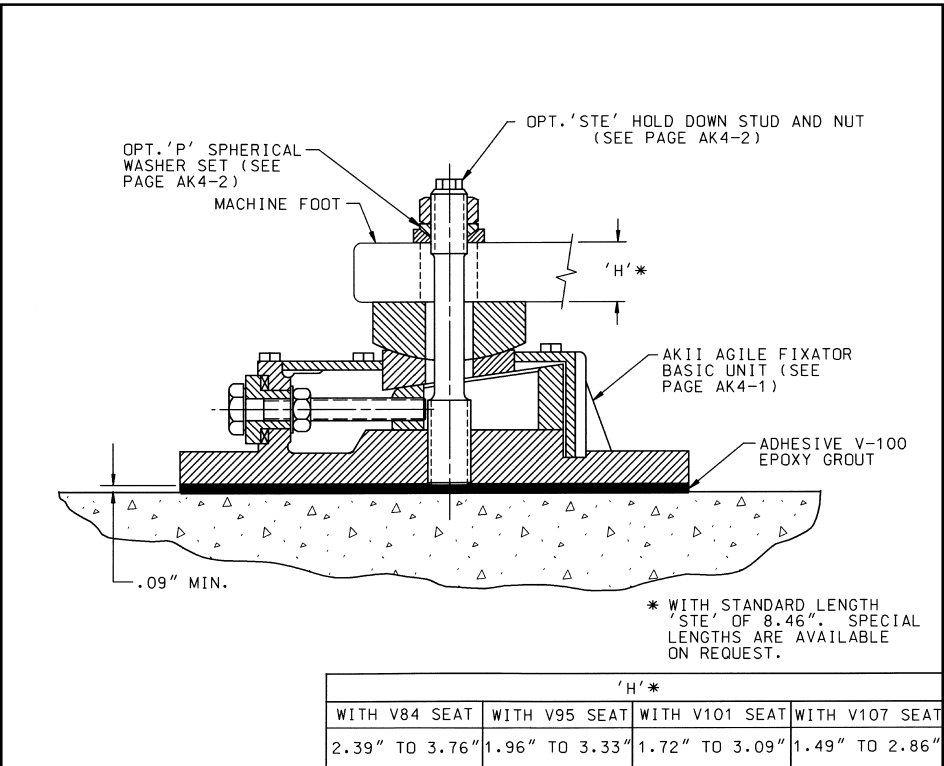


FIGURE 2. 'STE' CENTER BOLT - GLUE DOWN

Figure 3.

This method of installation utilizes four (4) Unisorb® Capsule Anchors and Stud Assemblies with two (2) located on each side of the Fixator®. The anchors may be installed after the Fixator® is in place. See page AK4-6 for instructions on installing these anchors. This method also uses the Opt. 'STE' Hold Down Stud, and may use either the Opt. 'Y' Resilient Pad or the Adhesive V-100 Epoxy Grout beneath the Fixator®.

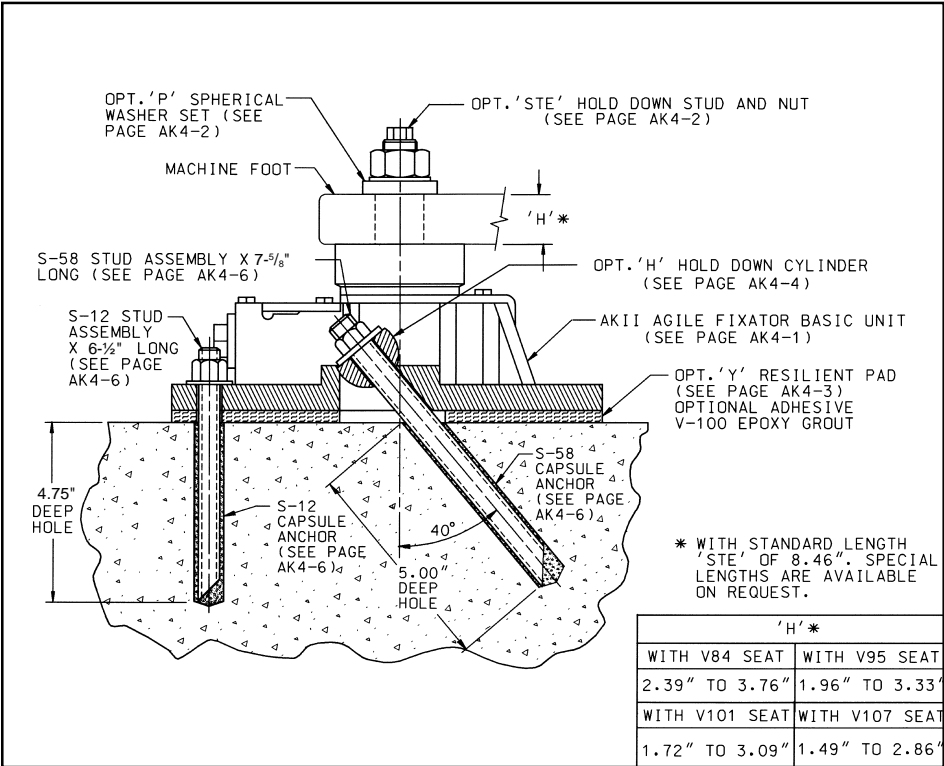


FIGURE 3. SIDE CAPSULE ANCHOR STUDS

Figure 4.

This method of installation utilizes the Unisorb® Toggle Clamp to hold down the Fixator®. The Toggle Clamp is held down with two (2) Unisorb® Capsule Anchors and Stud Assemblies, one located on each side. See page AK4-6 for instructions on installing these anchors. This method also uses the Opt. 'STE' Hold Down Stud, and may use either the Opt. 'Y' Resilient Pad or the Adhesive V-100 Epoxy Grout beneath the Fixator®.

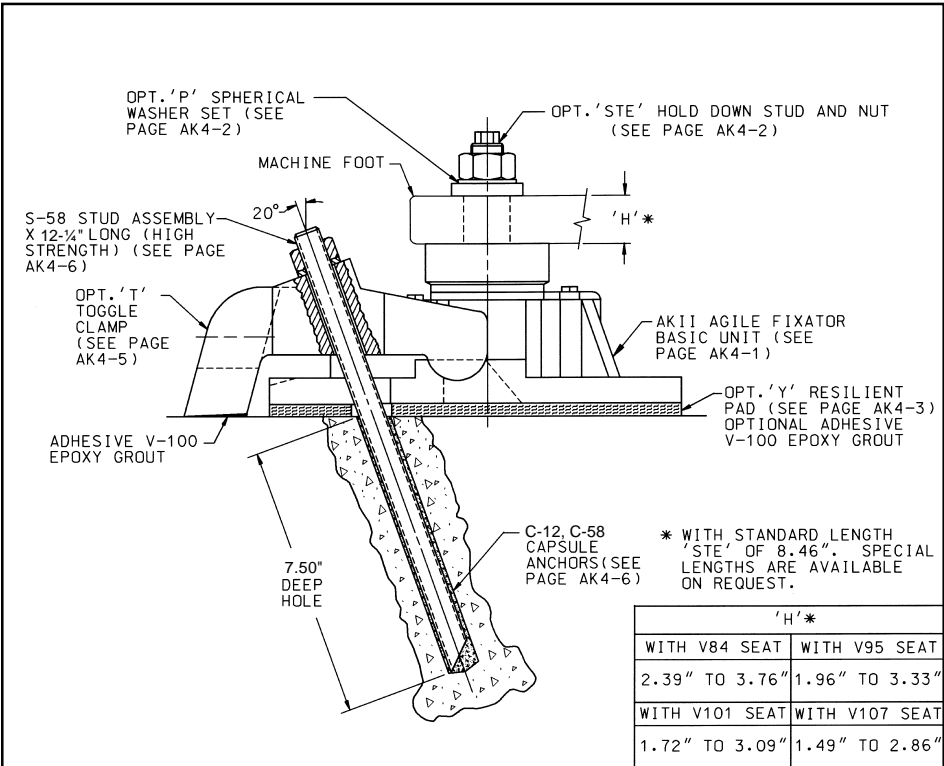


FIGURE 4. TOGGLE CLAMP WITH CAPSULE ANCHOR STUDS

Figure 5.

This method of installation utilizes a single, center mounted Unisorb® Capsule Anchor and Stud Assembly to securely fasten the Fixator® to the floor. The Capsule Anchor and Stud Assembly may be installed either before or after the Fixator® is in place. The recommended practice, however, is to install the anchor prior to placing the Fixator®. This installation method utilizes either the Opt. 'Y' Resilient Pad or the Adhesive V-100 Epoxy Grout and may be utilized only if access to the center stud anchoring location is available.

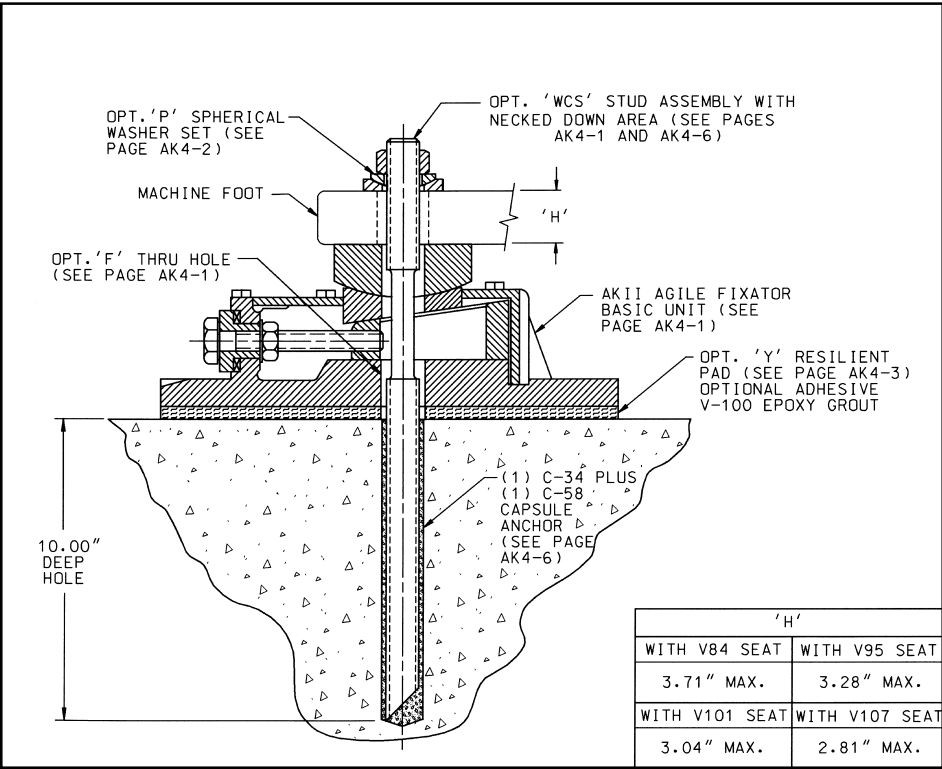


FIGURE 5. CENTER CAPSULE ANCHOR STUD

Figure 6.

This method of installation utilizes a single, center mounted Unisorb® Opt. 'WES' Anchor Hold Down Stud. This stud is placed into a core drilled hole and secured with either Unisorb® V-1 cementitious or Standard V-100 Epoxy Grout. A Unisorb® 12" x 15" Grout Form is used with this configuration. This method provides the most secure anchoring of all, and is recommended when very close tolerances are required to be held, and when access to the center anchoring location is available. Please note that this method provides no option for vibration isolation.

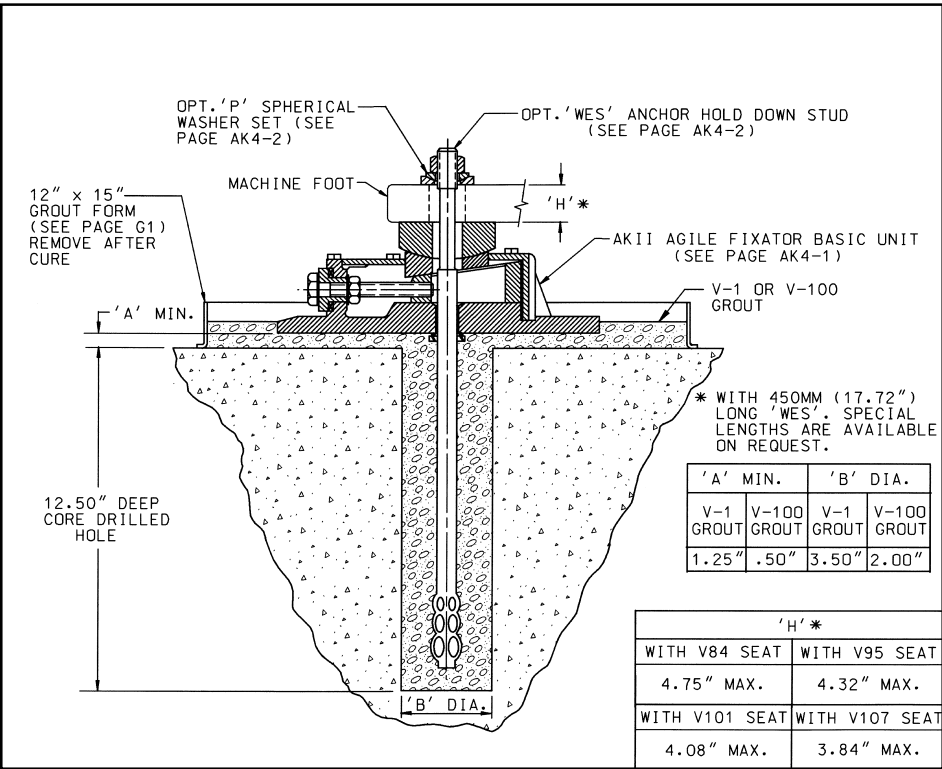
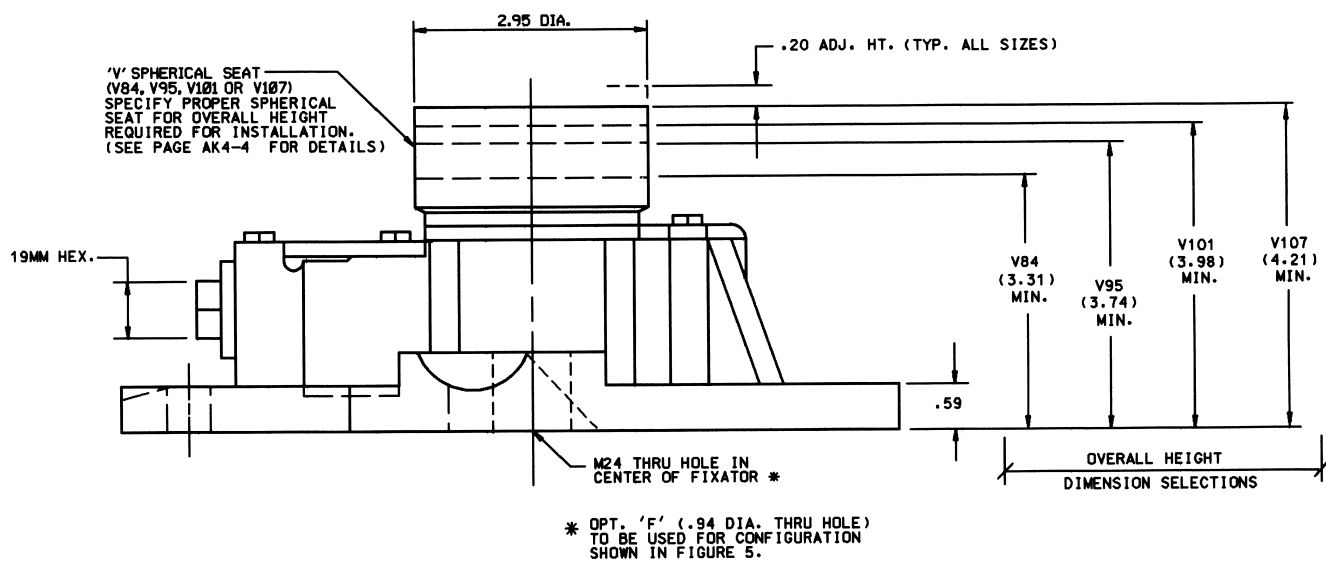
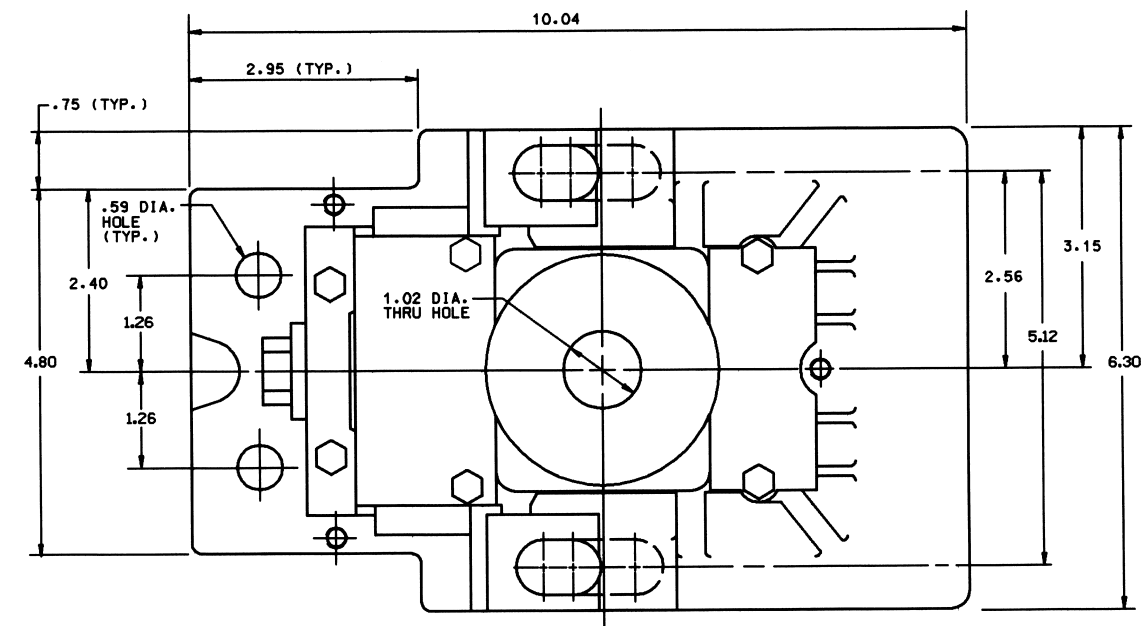
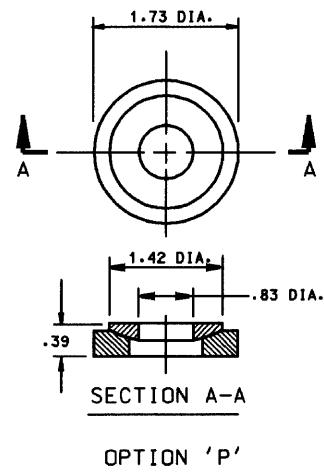
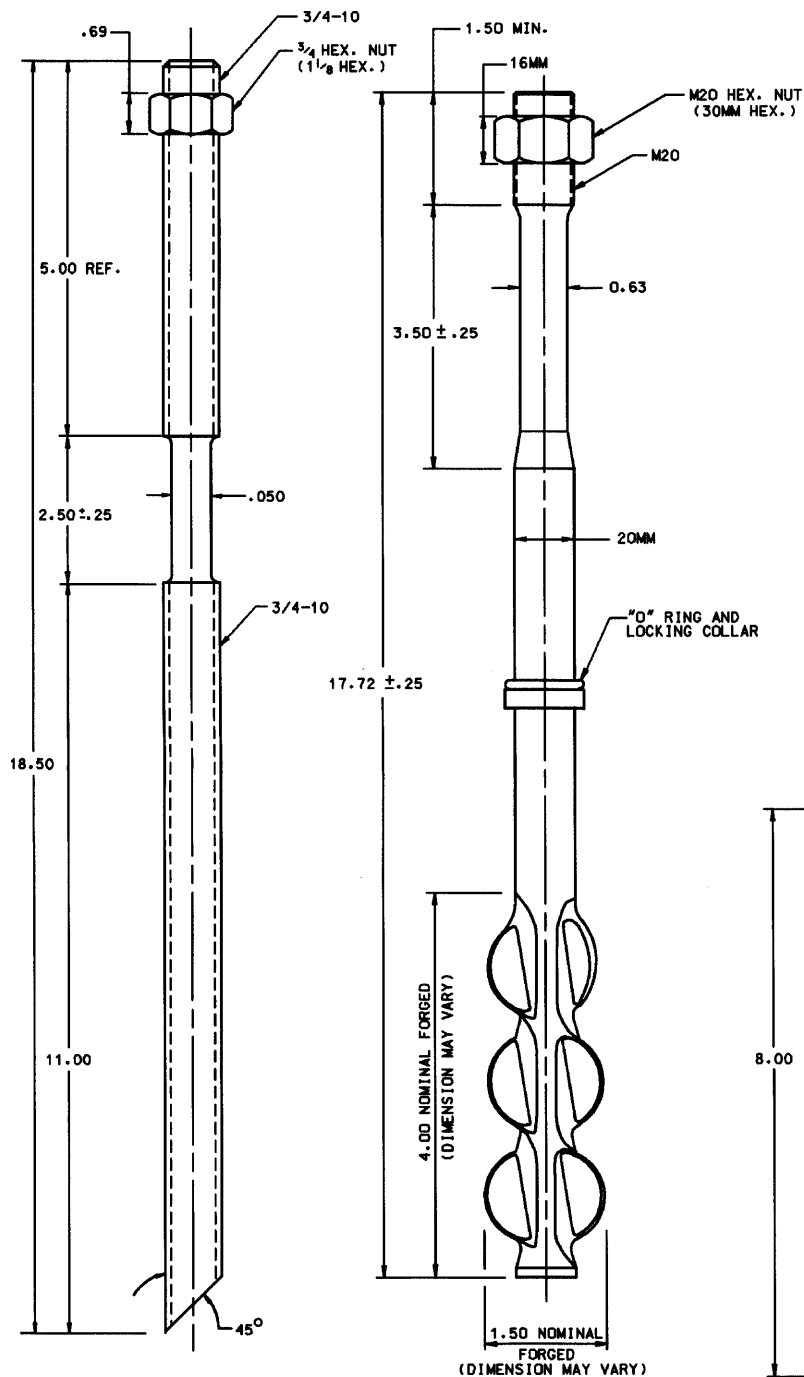


FIGURE 6. 'WES' CENTER ANCHOR STUD



## AKII AGILE FIXATOR BASIC UNIT

DIMENSIONS ARE IN INCHES  
UNLESS OTHERWISE SPECIFIED.



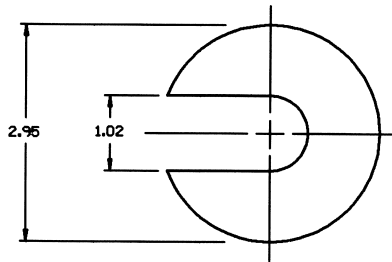
OPTION S-34 STUD ASSEMBLY  
WITH NECKED DOWN AREA

OPTION 'WES'  
ANCHOR HOLD DOWN STUD

OPTION 'STE'  
HOLD DOWN STUD  
(FOR V84 ONLY - DIM'S  
SAME AS STANDARD EXCEPT  
LENGTH)

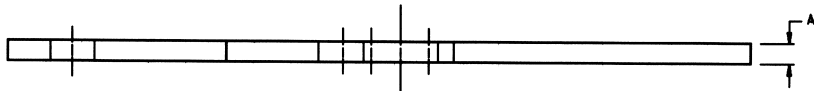
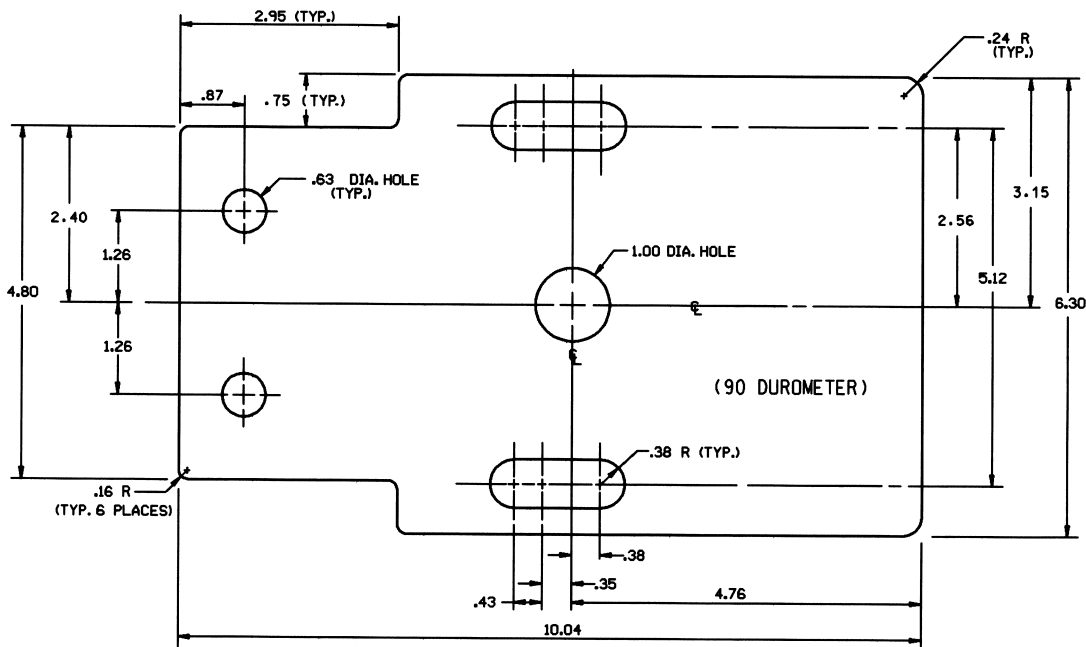
OPTION 'STE'  
HOLD DOWN STUD  
(STANDARD)

DIMENSIONS ARE IN INCHES  
UNLESS OTHERWISE NOTED



\*\* SHIMS TO BE USED WHERE NECESSARY TO ADJUST OVERALL HEIGHT. CUSTOMER SHOULD ORDER APPROPRIATELY FOR PROJECT SIZE.

OPTION 'Q'  
SHIM \*\*



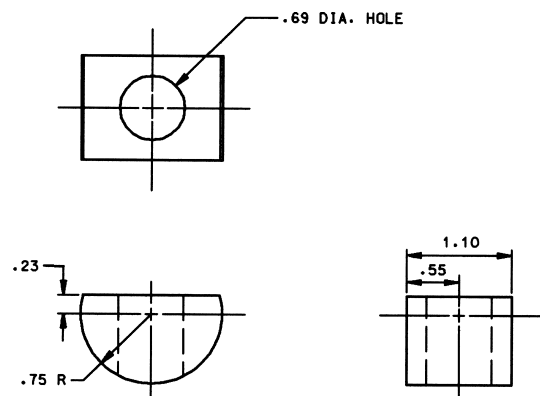
OPTION 'Y'  
RESILIENT PAD

A *
2MM (.08")
6MM (.24")

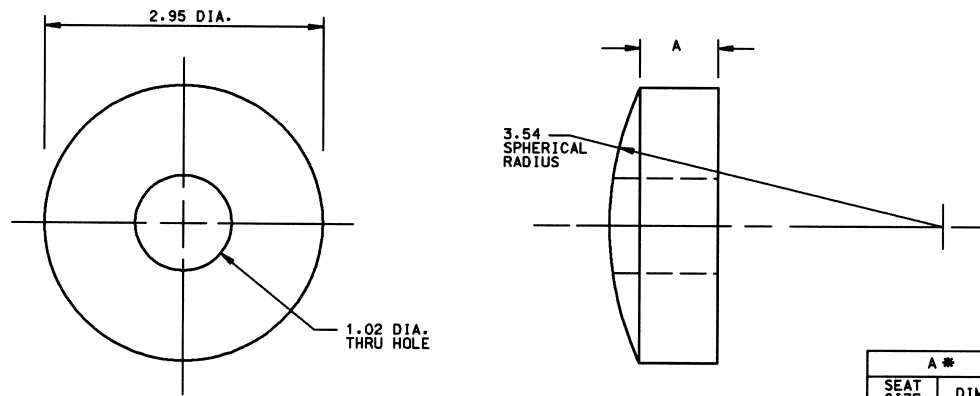
\* SPECIFY REQUIRED THICKNESS

DIMENSIONS ARE IN INCHES  
UNLESS OTHERWISE SPECIFIED.





OPTION 'H'  
HOLD DOWN CYLINDER

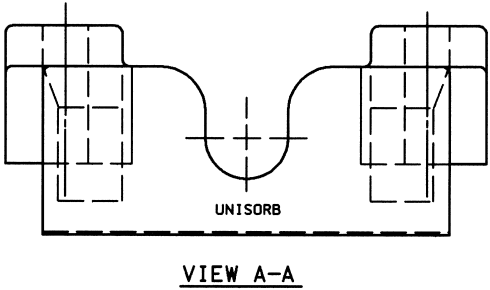
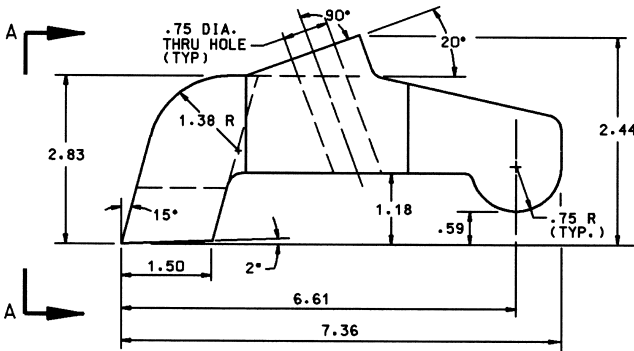
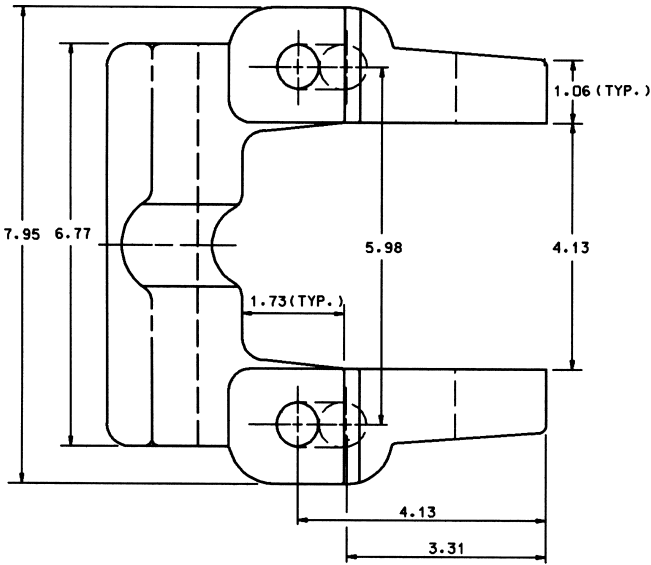


OPTION 'V'  
SPHERICAL SEAT

A *	
SEAT SIZE	DIM.
V84	.40
V95	.83
V101	1.07
V107	1.31

\* SPECIFY PROPER SPHERICAL SEAT FOR OVERALL HEIGHT REQUIRED FOR INSTALLATION. (SEE PAGE AK FOR ASSEMBLY)

DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.

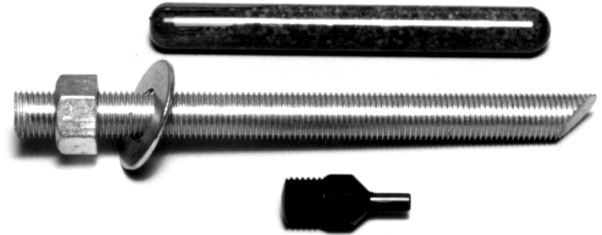
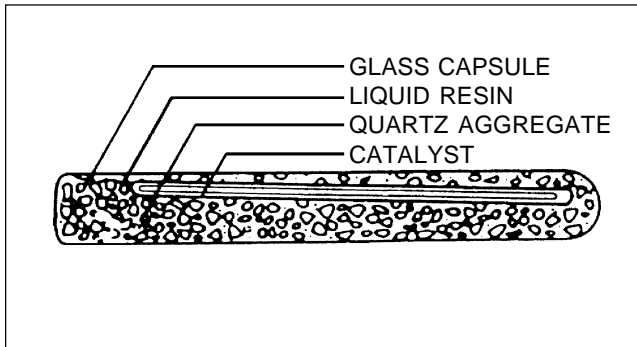


OPTION 'T'  
TOGGLE CLAMP

DIMENSIONS ARE IN INCHES  
UNLESS OTHERWISE SPECIFIED.

## UNISORB® CAPSULE ANCHOR SYSTEMS WITH STUD ASSEMBLY

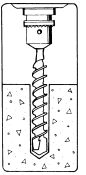
The Unisorb® Capsule Anchor with Stud Assembly offers tremendous holding power which is stronger than the concrete itself. A graded blend of quartz aggregate transfers the pullout forces into the concrete. Since there are no expansive forces from the anchor systems, they can be placed near the foundation edges, chip troughs, coolant trenches or wireways. High anchor-to-concrete strengths are developed which allow smaller anchor holes and smaller studs to be used than is possible with conventional expanding anchor type systems.



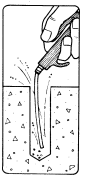
The Unisorb® Capsule Anchor with Stud Assembly is a superior method of heavy duty anchoring using a high strength adhesive to retain a threaded rod and other materials such as rebar, in concrete and other masonry material. The system consists of a glass capsule containing the proper proportion of base resin, hardener and aggregate for the anchor, appropriate length stud with washer and nut, and a drive unit to allow the stud to be installed with a standard hammer drill.

### INSTALLATION INSTRUCTIONS

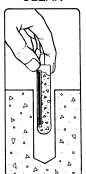
1. Drill a clearance hole for the insert using a rotary hammer drill or core drilling equipment. Refer to the chart for proper diameter and depth for each anchor size and standard stud material (50,000 psi). Drill deeper holes when using high tensile strength studs or when close to the foundation edge, chip troughs or have extremely close spacing.



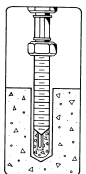
2. Thoroughly clean the holes. Excessive dust will reduce the holding power of the anchor. For best results blow out the concrete dust using compressed air or flush out with water. The strength of the bond will not be affected by wet or damp holes.



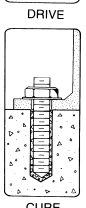
3. Insert the capsule anchor.



4. Assemble the drive unit into the hammer drill. Thread the nut onto the stud about one diameter and insert the stud into the drive unit. The drive unit should shoulder on the nut for ease of removal. Drive the point end into the capsule. This action will break the glass tube and mix the components. Turn the drill off immediately when the stud is fully inserted.



5. Allow the anchor to cure about 1 1/2 minutes without disturbing the drive unit. Two or more drive units may be convenient for larger jobs. Remove the drill unit by placing a wrench on the drive unit and another on the nut. Loosen, being careful not to disturb the stud. Allow the anchor to cure for the minimum time before using.



### SPECIFICATIONS

ANCHOR SIZE*	CAPSULE NUMBER	DRILL DIAMETER*	HOLE DEPTH*	ANCHOR NO. & LENGTH*	† ULTIMATE TENSILE LOAD	ULTIMATE SHEAR LOAD
3/8	C-38	7/16	3 1/2	S-38x5 1/8	7,820 lbs.	6,480 lbs.
1/2	C-12	9/16	4 1/4	S-12x6 1/2	13,435 lbs.	11,120 lbs.
5/8	C-58	11/16	5	S-58x7 5/8	20,585 lbs.	17,650 lbs.
5/8	C-58	11/16	6 1/4	S-58x11**	34,780 lbs.	17,650 lbs.
3/4	C-34	7/8	6 5/8	S-34x9 1/2	27,400 lbs.	27,385 lbs.
7/8	C-78	1	7	S-78x10 1/4	35,090 lbs.	36,065 lbs.
1	C-100	1 1/4	8 1/4	S-100x12	47,800 lbs.	53,135 lbs.
1 1/4	C-114	1 1/2	10 1/4	S-114x15	70,100 lbs.	68,000 lbs.

\*All dimensions in inches. \*\*High Strength Stud

### MINIMUM CURE TIMES

CONCRETE TEMPERATURE	CURE TIME
Over 68°F (20° C)	20 Minutes
50°F to 68°F (10° to 20° C)	30 Minutes
32°F to 50°F (0° to 10° C)	1 Hour
23°F to 32°F (-5° to 0° C)	5 Hours

### †ULTIMATE TENSILE LOAD TEST DATA

Test results using 4,000 PSI concrete are given as a guide only. It is recommended that tests to simulate actual conditions be carried out to determine the suitability of Capsule Anchors for particular applications.

To order specify capsule, stud and drive unit.