

# STRUCTURE ATTACHMENTS

## CONCRETE ATTACHMENT

### Figure 1020

The Figure 1020 Type 1 is for attaching support assemblies to concrete structures where little or no movement is anticipated. Used with a Figure 133 Threaded Rod or Figure 94 All Thread Rod.

The Figure 1020 Type 2 is for attaching support assemblies to concrete structures where movement is anticipated. Used with a Fig 279 Weldless Eyebolt or Figure 93 Welded Eyebolt. A two-anchor pattern is used on sizes  $\frac{3}{8}$ " thru  $\frac{5}{8}$ " and all others use four anchors.

**Material:** Carbon Steel.

**Finish:** Plain, Painted, Hot-Dip Galvanized

**Ordering:** Specify figure number, type number, rod size and finish.

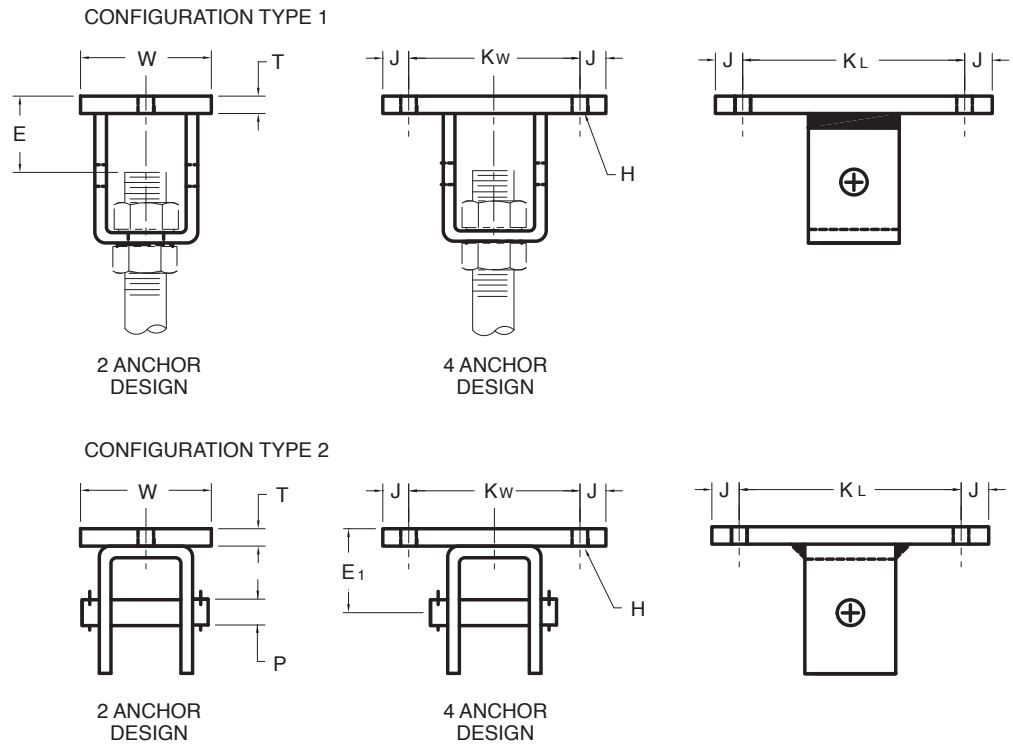


FIG. 1020 CONCRETE ATTACHMENT

ROD SIZE	MAX LOAD	E	E1	H*	P	J	K <sub>L</sub>	K <sub>w</sub>	T	W	D	WEIGHT EACH W/ PIN	WEIGHT EACH W/O PIN
$\frac{3}{8}$ M10	730 3247	$2\frac{1}{8}$ 54	$2\frac{1}{4}$ 57	$\frac{1}{2}$ 13	$\frac{1}{2}$ 13	1 25	4 102	N/A N/A	$\frac{1}{4}$ 6	5 127	4 102	2.8 1.8	2.7 1.2
$\frac{1}{2}$ M12	1350 6005	$2\frac{1}{8}$ 54	$2\frac{3}{8}$ 60	$\frac{5}{8}$ 16	$\frac{5}{8}$ 16	1 25	5 127	N/A N/A	$\frac{3}{8}$ 10	5 127	4 102	4.1 1.8	3.9 1.8
$\frac{5}{8}$ M16	2160 9609	$2\frac{1}{4}$ 57	$2\frac{1}{2}$ 64	$\frac{3}{4}$ 19	$\frac{3}{4}$ 19	1 25	6 152	N/A N/A	$\frac{1}{2}$ 13	5 127	4 102	5.8 2.6	5.5 2.5
$\frac{3}{4}$ M20	3230 14368	$2\frac{1}{8}$ 54	$2\frac{3}{8}$ 60	$\frac{5}{8}$ 16	$\frac{7}{8}$ 22	1 25	5 127	5 127	$\frac{3}{8}$ 10	5 127	N/A N/A	7.7 3.5	7.1 3.2
$\frac{7}{8}$ M20	4480 19929	$3\frac{3}{8}$ 86	$3\frac{5}{8}$ 92	$\frac{7}{8}$ 22	1 25	$1\frac{1}{4}$ 32	$6\frac{1}{2}$ 165	7 165	$\frac{5}{8}$ 16	5 127	N/A N/A	19.8 9.0	18.6 8.4
1 M24	5900 26246	$3\frac{3}{8}$ 86	$3\frac{5}{8}$ 92	$\frac{7}{8}$ 22	$1\frac{1}{8}$ 29	$1\frac{1}{4}$ 32	$6\frac{1}{2}$ 165	7 165	$\frac{5}{8}$ 16	6 152	N/A N/A	19.8 9.0	18.6 8.4
$1\frac{1}{4}$ M30	9500 42260	$3\frac{3}{8}$ 92	$3\frac{3}{4}$ 95	1 25	$1\frac{3}{8}$ 35	2 51	8 203	8 203	$\frac{3}{4}$ 19	6 152	N/A N/A	41.0 18.6	38.7 17.6
$1\frac{1}{2}$ M36	13800 61388	5 127	5 127	$1\frac{1}{8}$ 29	$1\frac{1}{8}$ 41	2 51	8 203	8 203	1 25	6 152	N/A N/A	60.0 27.2	56.4 25.6
$1\frac{3}{4}$ M42	18600 82740	$6\frac{1}{4}$ 159	$6\frac{1}{4}$ 159	$1\frac{3}{8}$ 35	2 51	2 51	10 254	10 254	$1\frac{1}{4}$ 32	7 178	N/A N/A	93.6 42.5	88.0 39.9
2 M48	24600 109431	$6\frac{1}{2}$ 165	$6\frac{1}{4}$ 159	$1\frac{3}{8}$ 35	$2\frac{1}{4}$ 57	2 51	10 254	10 254	$1\frac{1}{4}$ 32	7 178	N/A N/A	100.0 45.4	92.0 41.7

\* Holes are  $\frac{1}{8}$ " larger than recommended anchor bolt diameter to allow for installation tolerance.

Note: Load values are based upon the rod diameter only. Load values assume that concrete and anchors used are of sufficient strength to hold the load.

DIMENSIONS		TEMPERATURE	LOADS	WEIGHT
INCHES	MILLIMETERS	FAHRENHEIT	POUNDS	POUNDS
		CELSIUS	NEWTONS	KILOGRAMS