

## Plate Dowel Submittal

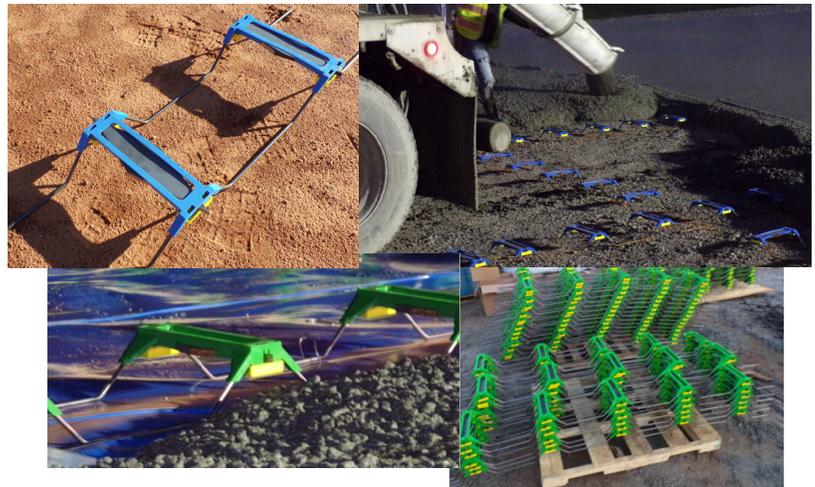
### EZBASKET Specifications:

- ✓ All EZBASKET products are manufactured by McTech Group, Inc.
- ✓ Tapered plate dowels will be cut from hot roll ASTM A36 bar within a 0.010 tolerance.
- ✓ Dowel sleeves, both tapered and round, shall be molded from polypropylene – no break
- ✓ Side frame supports will be fabricated from 0.283 to 0.375 diameter cold drawn wire per ASTM 510/A510.
- ✓ The finished field assembled EZBASKET will position the dowels, tapered or round within +/- 0.015 "of the required slab placement depth.
- ✓ EZBASKET is stackable after assembly for transportation to the jobsite and will remain stable under concrete placement.

### EZBASKET Configurations:

#### Plate Dowel Baskets

3/8" x 18" OC  
3/8" x 24" OC  
1/2" x 12" OC  
1/2" x 18" OC  
1/2" x 18" OC



### Fast, Simple Assembly

- ✓ With the use of the EZBASKET jig assembly is just a quick snap of the side frame into the specially designed plastic sleeve, snap in the dowel sleeve clips and the assembly is complete. See video : <https://youtu.be/ear4bTLn5qY>
- ✓ Easy to handle, can be carried and installed by one person during concrete placement.
- ✓ EZBASKET components are crated /boxed /palletized as required for easy handling and reduced freight costs.

US PATENT NO. 11,149,385

The tapered Plate dowel will be inserted into a specially designed plastic sleeve that will be friction fitted onto the wire side frame to hold the finished plate dowel assembly at plus or minus 1/8" of the required slab placement depth.

**EZBASKET™**

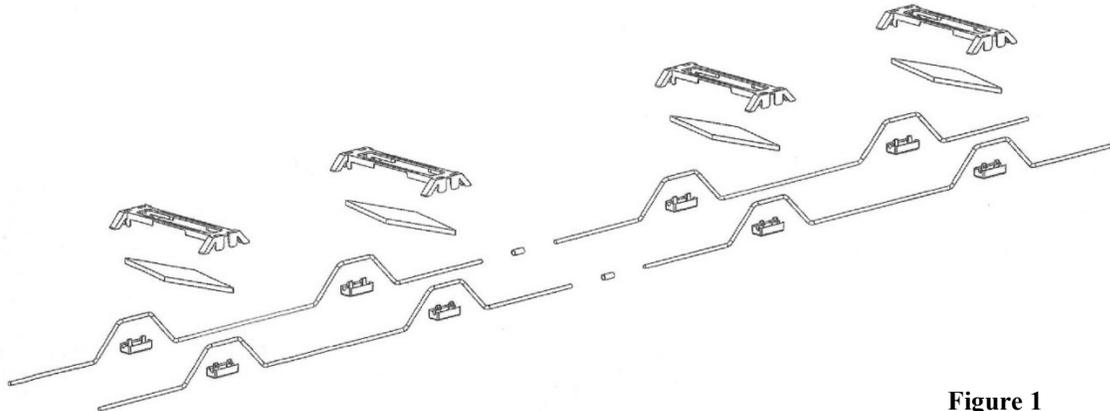


Figure 1

**Dowel Basket – ACI 360**

**Table 5.1 – Dowel size and spacing for construction and contraction joints<sup>1</sup>**

Slab depth, in. (mm)	Dowel dimensions, in. (mm)			Dowel spacing center-to-center, in. (mm)		
	Round <sup>4</sup>	Square <sup>3,5</sup>	Plate Dowel	Round <sup>4</sup>	Square <sup>3,5</sup>	Plate Dowel
5 to 6 (130 to 150)	3/4 x 14 (19 x 360)	3/4 x 14 (19 x 360)	M/R <sup>2</sup>	12 (300)	14 (360)	18 (460)
7 to 8 (180 to 200)	1 x 16 (25 x 410)	1 x 16 (25 x 410)	M/R <sup>2</sup>	12 (300)	14 (360)	18 (460)
9 to 11 (230 to 280)	1-1/4 x 18 (32 x 460)	1-1/4 x 18 (32 x 450)	M/R <sup>2</sup>	12 (300)	12 (300)	18 (460)

1. Table values based on a maximum joint opening of 0.20 in. (5 mm). Dowels must be carefully aligned and supported during concrete operations. Misaligned dowels may lead to cracking. Spacings are based on dowels in direct contact on the concrete with a thin bond breaker. Total dowel length includes allowance made for joint opening and minor errors in positioning dowels.
2. M/R= Manufacturers' Recommendations. Because of the various plate dowel geometries and installation devices available from the different manufacturers, the manufacturers should be consulted for their recommended plate dowel size and spacing.
3. Square dowels should have compressible material securely attached on both vertical faces.
4. ACI Committee 325 (1956)
5. Walker and Holland (1998)



## Dowel Basket - Application

### Load Capacities 3"

Load Capacities based upon the ACI 1956 Highway Dowel Design Report. Load table for 3" wide x 12" long dowels, thickness varies, A36 steel. Point loads for approximately 3' x 3' area. Soil sub modulus (k)=200. Axle load based upon 24" and 36" spacing between wheels. Dowel spacings of 24" and 18"

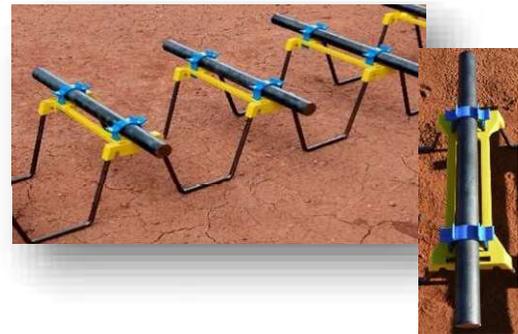
Slab thickness	Dowel thickness (in)	Maximum Single Point Load	Dowel Groups Maximum Load per Axle (lbs) Dowel plate spacing / load spacing			
			18 / 24	24 / 24	18 / 36	24 / 36
4"	0.2500	2766	7634	5634	9136	7294
	0.3125	3236	8378	6592	10689	8534
	0.3750	3678	9980	7492	12148	9698
5"	0.2500	2766	7164	5532	7634	8220
	0.3125	3236	8382	6472	8982	9618
	0.3750	3678	9525	7355	10151	10931
6"	0.2500	2766	8801	6638	10502	7952
	0.3125	3236	10297	7767	12882	9304
	0.3750	3678	11703	8827	13967	11033
7"	0.2500	2766	9078	7349	9415	8818
	0.3125	3236	10621	8599	11016	10317
	0.3750	3678	12070	9772	12519	11725
	0.5000	4497	14760	11949	15309	14337
8"	0.3785	3678	12240	10301	12949	12328
	0.5000	4497	15187	13042	15835	15075
	0.7500	5963	20137	16702	20996	19988
10"	0.3785	3678	14332	11390	16363	12045
	0.5000	4497	17526	13928	20009	14729
	0.7500	5963	23238	18467	26529	19529

## EZ BASKET™

### CARBON FOOTPRINT PROFILE

EZ Basket has the lowest carbon footprint compared to all of the commercially available load transfer products currently in the marketplace. The combination of A36 steel, ASTM A510 wire and “no break” polypropylene has produced a load transfer product that has lower CO2 manufacturing emissions than traditional competitors due to the following design/manufacturing advantages:

- ✓ The unique substitution of polypropylene to replace more the fifty (50%) of the metal wire normally required for dowel support.
- ✓ Polypropylene components weigh less than metal wire while supplying equal or greater tensile strength and having a lower specific gravity than wire.
- ✓ Due to its lower overall weight EZ Basket also reduces the embedded energy CO2 emissions from transportation of product from factory to end user.



- ✓ Wire and steel production require more energy than producing polypropylene.
- ✓ The Global Warming Potential (GWP) on the wire and steel used in EZ Basket, without renewable energy certificates, is compliant with a GWP limit of 779kg CO2 per metric ton of materials.

Flexibility in design with polypropylene cannot be matched by metal wire therefore providing the unique advantage of creating complex shapes as in the example of the EZ Basket dowel sleeve, which eliminates welding and further reduces the CO2 emissions from the product manufacturing process.

