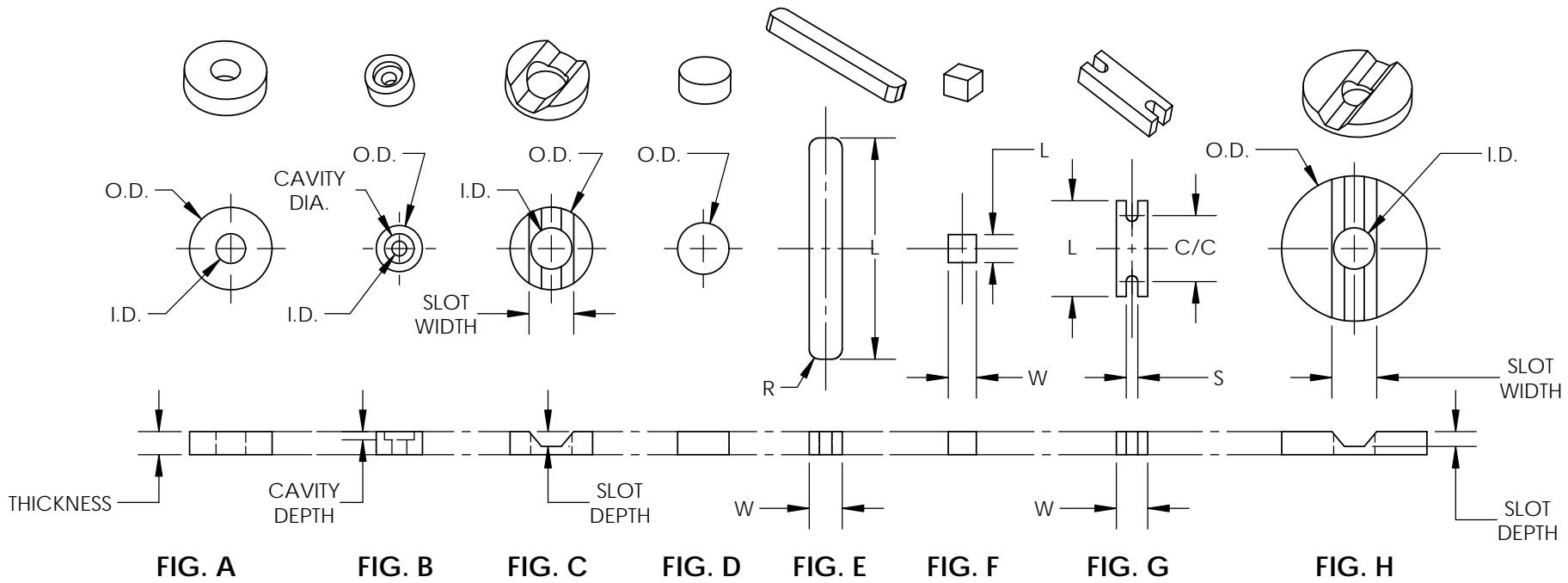
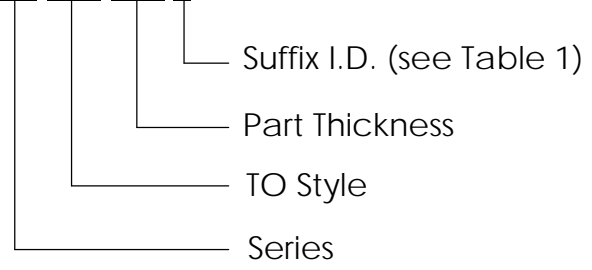


REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
H	Add Part Number, See Page 2	3/31/16	J.C.
J	Engineering Update w/o Changes	5/13/16	J.C.
K	Corrected Typo Dimensions on Page 2 & 3	7/29/16	J.C.
L	ECO # 1014 , Update tables on Page 2 & 3 (EOL related)	6/6/2019	G. O.
M	ECO-1235, Update Tables & PN List and Table 2	2/26/2024	A.V.



EXAMPLE:  
TO-200-100 E



I.D. DESCRIPTION	NOTES
Wax	Offered for all part numbers
Effervescent	Offered for all part numbers (Except for - See Table 2)
Color Removed	Offered for all part numbers (Except for - See Table 2)
Detergent Removed	Offered for all part numbers (Except for - See Table 2)
Salt	Not offered for P/Ns: TO-10, TO-11, TO-64, TO-65, TO-68 (Others per Table 2)
Extra Hard	Not offered for P/Ns: TO-10, TO-11, TO-64, TO-65, TO-68 (Others per Table 2)

**CUSTOMER USE DRAWING**

STANDARD TOLERANCE (UNLESS OTHERWISE SPECIFIED)		 <b>BIVAR</b> <sup>®</sup> 4 THOMAS, IRVINE, CA. 92618 TEL: (949) 951-8808 FAX: (949) 951-3974	
DECIMALS	ANGULAR		
.X ± .1	X° ± 1°	<b>TITLE: DISS-O-PADS, WASH AWAY SPACERS</b> <b>DRAWING NO: TO-XXX-XXX</b> REVISION: M <b>SHEET SIZE A</b> <b>CAGE CODE: 32559</b> <b>SCALE: 1:1</b> <b>SHEET # 1 OF 4</b>	
.XX ± .01			
.XXX ± .005			
DESIGNED: D. GREEN	DATE: 10/15/2003		
REVISD: A.VALDEZ	DATE: 02/26/2024		
CHECKED: R.PEREYRA	DATE: 02/26/2024		

CAD GENERATED DOCUMENT, DO NOT MEASURE DRAWING

**GENERAL PURPOSE**

Part No	I.D.	O.D.	THICKNESS	FIG.
TO-46	.090 (2.3mm)	.250 (6.4mm)	.040, .050, .060, .070, .090, .100, .120, .130	A
TO-19	.250 (6.4mm)	.480 (12.2mm)	.050, .060	A
TO-22	.225 (5.7mm)	.437 (11.1mm)	.040, .050, .060, .070, .080, .090, .100, .110	A
TO-23	.090 (2.3mm)	.310 (7.9mm)	.040, .050, .055, .060, .070, .090, .100, .120	A
TO-24	.090 (2.3mm)	.340 (8.6mm)	.040, .050, .060, .070, .090, .100	A
TO-30	.275 (7.0mm)	.397 (10.0mm)	.040, .050, .060, .070, .090, .100	A
TO-25	.180 (4.6mm)	.480 (12.2mm)	.040, .050, .060, .070, .090, .100, .120, .130	A
TO-28	.172 (4.4mm)	.343 (8.7mm)	.040, .050, .060, .070, .090, .100, .120, .130	A
TO-41	.156 (4.0mm)	.360 (9.1mm)	.030, .040, .050, .060, .070, .090, .100, .120, .130, .140	A
TO-42	.250 (6.4mm)	.438 (11.1mm)	.040, .050, .060, .070, .090, .100, .120	A

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
-	See Sheet1	-	-

**RECTANGULAR & SQUARE**

Part No	L	W	R	THICKNESS	FIG.	SHAPE
TO-100	.670 (17.0mm)	.100 (2.5mm)	.031 (.79mm)	.040, .050, .060, .065, .070, .090	E	Rectangular
TO-101	.562 (14.3mm)	.185 (4.7mm)	-	.040, .050, .060, .080, .100, .130, .150	E	Rectangular
TO-102	.505 (12.8mm)	.160 (4.1mm)	-	.040, .050, .060, .070, .090, .100, .120	E	Rectangular
TO-116	.666 (16.9mm)	.300 (7.6mm)	.063 (1.6mm)	.040, .060, .070, .080, .090, .120, .130, .150	E	Rectangular
TO-117	.666 (16.9mm)	.281 (7.1mm)	.100 (2.54mm)	.060, .070, .080, .100, .125	E	Rectangular
TO-118	.705 (17.9mm)	.260 (6.6mm)	.080 (2.0mm)	.040, .050, .060, .070, .090, .100, .120, .150	E	Rectangular
TO-120	.085 (2.2mm)	.085 (2.2mm)	-	.040, .050, .060, .070	F	Square
TO-121	.095 (2.4mm)	.095 (2.4mm)	-	.050, .060, .070, .100	F	Square

**RADIAL & AXIAL DEVICE**

Part No	C/C	S	W	L	THICKNESS	FIG.
TO-200	.100 (2.5mm)	.035 (.89mm)	.095 (2.4mm)	.190 (4.8mm)	.040, .050, .060, .090, .100, .120, .130, .150	G
TO-201	.150 (3.8mm)	.035 (.89mm)	.095 (2.4mm)	.240 (6.1mm)	.040, .050, .060, .100	G
TO-203	.200 (5.1mm)	.035 (.89mm)	.095 (2.4mm)	.290 (7.4mm)	.040, .050, .060, .090, .100	G
TO-204	.250 (6.4mm)	.040 (1.0mm)	.145 (3.7mm)	.340 (8.6mm)	.040, .100, .120	G
TO-205	.300 (7.6mm)	.040 (1.0mm)	.145 (3.7mm)	.390 (9.9mm)	.040, .060, .070, .090	G
TO-206	.400 (10.2mm)	.045 (1.1mm)	.195 (5.0mm)	.490 (12.4mm)	.040, .050, .070, .100, .120, .130, .150	G
TO-207	.500 (12.7mm)	.045 (1.1mm)	.195 (5.0mm)	.590 (15.0mm)	.040, .050, .060, .070, .090, .100, .120, .130	G

**CUSTOMER USE DRAWING**



<b>CAGE CODE:</b>	<b>32559</b>	<b>DRAWING NO:</b> TO-XXX-XXX	<b>REVISION:</b> M
<b>SHEET SIZE:</b>	<b>A</b>	SCALE: 1:1	<b>SHEET # 2 OF 4</b>
CAD GENERATED DOCUMENT, DO NOT MEASURE DRAWING			

TO-5						
Part No	I.D.	O.D.	THICKNESS		FIG.	TO--5
TO-5	.225 (5.7mm)	.375 (9.5mm)	.040, .050, .060, .070, .085, .090, .100, .120, .130, .150		A	Spacer
TO-6	.250 (6.4mm)	.375 (9.5mm)	.040, .050, .060, .070, .090, .100, .120, .130, .150		A	I.C. Spacer
TO-9	.300 (7.6mm)	.437 (11.1mm)	.040, .050, .070, .080, .090, .100, .120, .130, .150, .180		A	-
TO-13	.225 (5.7mm)	.310 (7.9mm)	.050, .060		A	Epoxy Case

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
-	See Sheet1	-	-

TO-18							
Part No	I.D.	O.D.	CAVITY DIA.	CAVITY DEPTH	THICKNESS	FIG.	TO-18
TO-12	.125 (3.2mm)	.310 (7.9mm)	.215 (5.5mm)	.065 (1.7mm)	.080, .090, .100	B	.250 (6.4mm) L.S.
TO-16	.125 (3.2mm)	.205 (5.2mm)	-	-	.040, .050, .060, .070, .080, .090, .100, .120, .130, .200	A	Epoxy Case
TO-17	.170 (4.3mm)	.250 (6.4mm)	-	-	.035, .040, .050, .060, .070, .090, .100, .120, .130, .140, .150, .170, .180, .200	A	Thin Walls
TO-18	.125 (3.2mm)	.250 (6.4mm)	-	-	.040, .050, .060, .070, .090, .100, .120, .130, .150, .190	A	Standard
TO-20	.125 (3.2mm)	.290 (7.4mm)	.200 (5.1mm)	.065 (1.7mm)	0.07	B	.200 (5.1mm) L.S.
TO-27	.125 (3.2mm)	.290 (7.4mm)	-	-	.040, .050, .060, .070, .090	A	Heavy Walls

AXIAL						
Part No	I.D.	O.D.	THICKNESS	SLOT DEPTH	SLOT WIDTH	FIG.
TO-21	.125 (3.2mm)	.250 (6.4mm)	.050, .070, .080, .090, .100, .120, .130, .150,	.045 (1.1mm)	.060 (1.5mm)	C
TO-35	-	.440 (11.2mm)	.100, .120, .130, .140, .150, .170, .180, .190, .220	.065 (1.7mm)	.230 (5.8mm)	H
TO-36	-	.187 (4.7mm)	.050, .060, .070, .080, .090, .100, .120, .130, .150	.040 (1.0mm)	.080 (2.0mm)	H
TO-37	-	.156 (4.0mm)	.050, .070, .080, .090, .100, .120	.025 (.64mm)	.050 (1.3mm)	H

ON-END/CORDWOOD						
Part No	I.D.	O.D.	CAVITY DIA.	CAVITY DEPTH	THICKNESS	FIG.
TO-7	.075 (1.9mm)	.175 (4.4mm)	-	-	.030, .040, .050, .060, .070, .090, .100, .120, .130, .150	A
TO-8	.062 (1.6mm)	.156 (4.0mm)	-	-	.030, .035, .040, .050, .055, .060, .065, .070, .080, .085, .090, .100, .105, .120, .130, .150, .160	A
TO-10	.040 (1.0mm)	.085 (2.2mm)	-	-	.030, .040, .050, .060, .065, .070, .080, .100	A
TO-11	.045 (1.1mm)	.100 (2.5mm)	-	-	.030, .040, .050, .060, .070, .080, .100	A
TO-26	.070 (1.8mm)	.187 (4.7mm)	-	-	.030, .040, .050, .060, .070, .090, .100, .120	A
TO-40	.045 (1.1mm)	.156 (4.0mm)	-	-	.030, .040, .050, .060, .070, .080, .090, .100, .120, .130, .150	A
TO-64	.045 (1.1mm)	.140 (3.6mm)	-	-	.030, .035, .040, .050, .060, .070, .090, .100, .120, .125, .130, .140, .150	A
TO-65	.075 (1.9mm)	.140 (3.6mm)	-	-	.030, .035, .040, .045, .050, .060, .070, .080, .090, .100, .120, .125, .130	A
TO-67	.045 (1.1mm)	.140 (3.6mm)	.090 (2.3mm)	.025 (.64mm)	.050, .055, .060, .070, .090	B
TO-68	.045 (1.1mm)	.110 (2.8mm)	.075 (1.9mm)	.025 (.64mm)	.040, .050, .055, .060, .070, .090, .100, .120, .130	B

SOLID				
Part No	I.D.	O.D.	THICKNESS	FIG.
TO-29	-	.156 (4.0mm)	.040, .050, .060, .070, .090, .100	D
TO-31	-	.125 (3.2mm)	.040, .050, .060, .070, .090, .100, .120, .130	D
TO-32	-	.187 (4.7mm)	.030, .040, .050, .060, .070, .080, .090, .100	D
TO-33	-	.250 (6.4mm)	.030, .040, .050, .060, .070, .080, .090, .100, .120, .130	D
TO-34	-	.375 (9.5mm)	.040, .050, .060, .070, .090, .100	D

**CUSTOMER USE DRAWING**

		<b>BIVAR</b> <sup>®</sup>	
<b>CAGE CODE:</b>	<b>32559</b>	<b>DRAWING NO:</b> TO-XXX-XXX	<b>REVISION:</b> <b>M</b>
<b>SHEET SIZE:</b>	<b>A</b>	SCALE: 1:1	<b>SHEET # 3 OF 4</b>
CAD GENERATED DOCUMENT, DO NOT MEASURE DRAWING			

**TABLE 2 - PART NUMBERS NOT OFFERED WITH:**

EFFERVESCENT (E)			COLOR REMOVED (CR)	DETERGENT REMOVED (DR)	SALT (H)	EXTRA HARD (XH)
TO-100-040	TO-120-070	TO-200-120	TO-100-040		TO-100-090	TO-101-060
TO-100-060	TO-120-150	TO-200-150	TO-121-050		TO-100-060	TO-101-040
TO-100-090	TO-121-050	TO-201-040	TO-121-060		TO-10-040	TO-116-040
TO-101-040	TO-121-060	TO-201-050	TO-11-030		TO-10-060	TO-116-060
TO-101-050	TO-121-070	TO-201-060	TO-11-040		TO-11-060	TO-116-070
TO-101-060	TO-121-100	TO-201-100	TO-17-050		TO-16-050	TO-117-070
TO-101-100	TO-10-030	TO-203-050	TO-17-070		TO-16-120	TO-117-080
TO-101-130	TO-10-040	TO-203-060	TO-18-040			TO-117-100
TO-101-150	TO-10-050	TO-203-090	TO-200-090			TO-117-125
TO-102-040	TO-10-070	TO-203-100	TO-203-060			TO-120-040
TO-102-050	TO-11-050	TO-204-040				TO-13-050
TO-102-060	TO-11-060	TO-204-100				TO-16-050
TO-102-070	TO-11-070	TO-205-040				TO-16-100
TO-102-090	TO-11-100	TO-205-060				TO-17-040
TO-102-100	TO-13-050	TO-205-090				TO-17-050
TO-102-060	TO-16-040	TO-206-040				TO-17-070
TO-116-080	TO-16-060	TO-206-040				TO-17-100
TO-116-060	TO-16-070	TO-206-100				TO-17-120
TO-116-070	TO-16-090					TO-18-040
TO-116-090	TO-16-100					TO-18-050
TO-116-130	TO-16-120					TO-18-060
TO-116-150	TO-17-070					TO-18-070
TO-117-060	TO-17-100					TO-18-100
TO-117-070	TO-17-120					TO-18-150
TO-117-100	TO-17-130					TO-200-060
TO-118-040	TO-18-050					TO-200-100
TO-118-050	TO-18-070					TO-200-130
TO-118-060	TO-18-090					TO-200-150
TO-118-070	TO-18-100					TO-201-040
TO-118-090	TO-18-120					TO-201-060
TO-118-100	TO-18-150					TO-203-040
TO-118-120	TO-19-050					TO-204-100
TO-118-150	TO-20-070					TO-205-040
TO-120-040	TO-200-040					TO-205-070
TO-120-050	TO-200-050					TO-205-090
TO-120-060	TO-200-060					TO-206-040

**CUSTOMER USE DRAWING**

		<b>BIVAR<sup>®</sup></b>	
<b>CAGE CODE:</b>	<b>32559</b>	<b>DRAWING NO:</b> TO-XXX-XXX	<b>REVISION:</b> M
<b>SHEET SIZE:</b>	<b>A</b>	SCALE: 1:1	<b>SHEET # 4 OF 4</b>
<small>CAD GENERATED DOCUMENT, DO NOT MEASURE DRAWING</small>			