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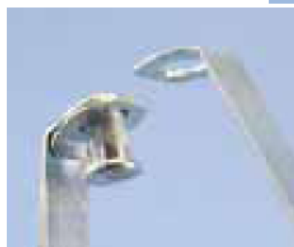
MARY

112 Swivel Loop Hanger

For Steel and CPVC Pipe

Features

- Integral fold-over washer and annular rib provide more strength
- Flared edges help prevent any sharp surfaces from coming into contact with the CPVC pipe
- Flared insert nut helps ensure the loop hanger and insert nut stay together during shipping and installation
- Manufactured to use with minimum rod size permitted by NFPA® for fire sprinkler piping
- Standard electro-galvanized finish is cleaner, provides superior corrosion protection
- Available in Metric, Imperial and British Whitworth threads
- UL® Listed. FM® and LPCB® Approved, conforms with MSS SP-58 and SP-69 (Type 10)



The 112 Swivel Loop Hanger, part of the CADDY® line of hangers, fasteners and supports from ERICO®, is ideal for suspending stationary non-insulated pipe lines, including CPVC pipes, in fire protection systems. The knurled insert nut helps simplify vertical adjustments, and the flared opening keeps the insert nut attached to the loop hanger at all times, providing added convenience and eliminating the frustration of dropped nuts.

An integral fold-over washer (2-1/2" to 8" or DN65 to DN200) and stiffening gussets (1/2" to 2" or DN15 to DN50) provide increased strength for the hanger bands and help to minimize deflection. The load limit is up to 1350 lbs (6000 N).

The flared edges on the base of the 112 Swivel Loop Hanger (1/2" to 4" or DN15 to DN100) help protect pipes by keeping them from coming into contact with any sharp edges of the hanger, making this product ideal for use with CPVC pipes.



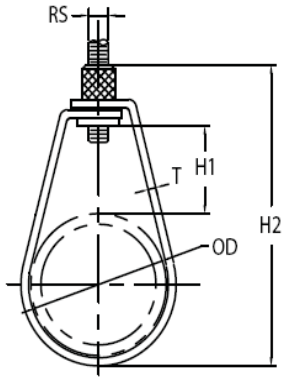
Patent pending design



ERICO®

112 Swivel Loop Hanger

For Steel and CPVC Pipe



Imperial Thread

Part Number	OD (in)	Rod Size (in)	Width (in)	Thickness (in)	H1 (in)	H2 (in)	Finish	Max. Recommended Load (lbs)
1120050EG	1/2	3/8-16 UNC	5/8	0.040	1 1/16	2 3/4	EG	300
1120075EG	3/4	3/8-16 UNC	5/8	0.040	1 1/16	3	EG	300
1120100EG	1	3/8-16 UNC	5/8	0.040	1 1/16	3 5/16	EG	300
1120125EG	1 1/4	3/8-16 UNC	5/8	0.040	1 1/16	3 5/8	EG	300
1120150EG	1 1/2	3/8-16 UNC	5/8	0.040	1 1/16	3 7/8	EG	300
1120200EG	2	3/8-16 UNC	5/8	0.040	1 1/16	4 5/16	EG	300
1120250EG	2 1/2	3/8-16 UNC	3/4	0.063	1 1/16	5 1/2	EG	525
1120300EG	3	3/8-16 UNC	3/4	0.063	1 9/16	6 1/16	EG	525
1120400EG	4	3/8-16 UNC	3/4	0.063	2 3/16	7 5/8	EG	850
1120500EG	5	1/2-13 UNC	3/4	0.098	2 9/16	9 3/16	EG	850
1120600EG	6	1/2-13 UNC	3/4	0.098	2 9/16	10 1/4	EG	1000
1120800EG	8	1/2-13 UNC	3/4	0.118	3 7/16	13 3/16	EG	1350

Metric Thread

Part Number	Description	DN	Rod Size	Width (mm)	Thickness (mm)	H1 (mm)	H2 (mm)	Finish	Max. Recommended Load (N)
297860	112M0050EG	15	M10	16	1.0	27	70	EG	1330
297870	112M0075EG	20	M10	16	1.0	27	76	EG	1330
297880	112M0100EG	25	M10	16	1.0	27	84	EG	1330
297890	112M0125EG	32	M10	16	1.0	27	92	EG	1330
297900	112M0150EG	40	M10	16	1.0	27	98	EG	1330
297910	112M0200EG	50	M10	16	1.0	27	110	EG	1330
297920	112M0250EG	65	M10	20	1.6	39	139	EG	2340
297930	112M0300EG	80	M10	20	1.6	41	154	EG	2340
297940	112M0400EG	100	M10	20	1.6	55	193	EG	2890
297950	112M0500EG	125	M12	20	2.5	65	234	EG	2890
297960	112M0600EG	150	M12	20	2.5	65	261	EG	4450
297970	112M0800EG	200	M12	20	3.0	88	336	EG	6000

British Whitworth Thread

Part Number	OD (in)	Rod Size (in)	Width (in)	Thickness (in)	H1 (in)	H2 (in)	Finish	Max. Recommended Load (lbs)
112B0500EG	5	1/2-12 BSW	3/4	0.098	2 9/16	9 3/16	EG	850
112B0600EG	6	1/2-12 BSW	3/4	0.098	2 9/16	10 1/4	EG	1000
112B0800EG	8	1/2-12 BSW	3/4	0.118	3 7/16	13 3/16	EG	1350

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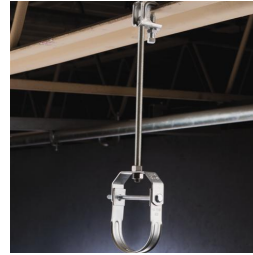
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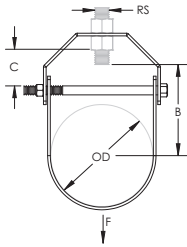
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401 Clevis Hanger



- Recommended for the suspension of stationary non-insulated pipe lines
- Also commonly used for the suspension of insulated pipe lines
- Flared edges help prevent sharp surfaces from coming into contact with the pipe (1/2" to 2" pipe sizes)
- Clevis bottom pivots to allow pipe to be fed from either direction



Material: Steel

Finish: Electrogalvanized, Pregalvanized



Part Number	Article Number	Pipe Size	NB/DN	Outer Diameter OD	Rod Size RS	A	B	C	Static Load F	Certifications
4010050EG	179398	1/2"	15	21.0 mm	M10	59 mm	29.0 mm	9.0 mm	2,700 N	cULus
4010075EG	179399	3/4"	20	27.0 mm	M10	64 mm	32.0 mm	9.0 mm	2,700 N	cULus, FM
4010100EG	179420	1"	25	34.0 mm	M10	71 mm	35.0 mm	9.0 mm	2,700 N	cULus, FM
4010125EG	179421	1 1/4"	32	43.0 mm	M10	80 mm	40.0 mm	9.0 mm	2,700 N	cULus, FM
4010150EG	179422	1 1/2"	40	48.0 mm	M10	94 mm	53.0 mm	17.0 mm	2,700 N	cULus, FM
4010200EG	179423	2"	50	60.0 mm	M10	110 mm	63.0 mm	22.0 mm	2,700 N	cULus, FM
4010250EG	179424	2 1/2"	65	76.0 mm	M12	134 mm	78.0 mm	25.0 mm	5,000 N	cULus, FM
4010300EG	179425	3"	80	89.0 mm	M12	154 mm	90.0 mm	29.0 mm	5,000 N	cULus, FM
4010350EG	179521	3 1/2"	90	101.6 mm	M12	172 mm	101.0 mm	34.0 mm	5,000 N	cULus, FM
4010400EG	179426	4"	100	114.0 mm	M16	189 mm	111.0 mm	35.0 mm	5,000 N	cULus, FM
4010500EG	179427	5"	125	140.0 mm	M16	231 mm	130.0 mm	41.0 mm	6,400 N	cULus, FM
4010600EG	179428	6"	150	165.0 mm	M20	268 mm	153.0 mm	48.0 mm	8,600 N	cULus, FM
4010800EG	179429	8"	200	219.0 mm	M20	356 mm	204.0 mm	80.0 mm	8,900 N	–
4011000EG	179430	10"	250	273.0 mm	M20	419 mm	230.0 mm	66.0 mm	16,000 N	–
4011200EG	179431	12"	300	324.0 mm	M20	473 mm	258.0 mm	78.0 mm	17,000 N	–
4011400EG	179432	14"	350	356.0 mm	M24	552 mm	311.0 mm	111.4 mm	18,700 N	–
4011600EG	179433	16"	400	406.0 mm	M24	609 mm	342.8 mm	117.8 mm	20,500 N	–



Part Number	Article Number	Pipe Size	NB/DN	Outer Diameter OD	Rod Size RS	A	B	C	Static Load F	Certifications
4011800EG	179434	18"	450	457.0 mm	M28	680 mm	380.6 mm	130.8 mm	21,400 N	–
4012000EG	179435	20"	500	508.0 mm	M32	762 mm	432.3 mm	162.8 mm	21,400 N	–
4012400EG	179436	24"	600	610.0 mm	M32	867 mm	472.9 mm	144.3 mm	21,400 N	–

A shield is recommended for insulated pipe applications to effectively distribute the load.

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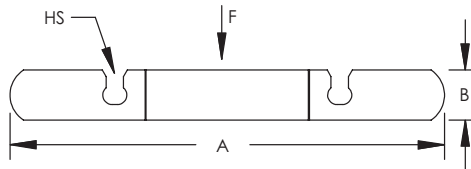
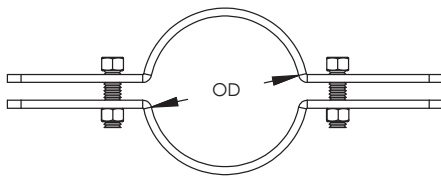
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510 CADDY® EZ RISER



- Recommended for suspending vertical steel pipe risers
- Slotted holes make assembly easy, eliminating loose hardware
- Serrated flange-head bolts eliminate need for wrenches on both bolt and nut
- Conforms with Federal Specification WW-H-171 (Type 8), Manufacturers Standardization Society (MSS) SP-58 (Type 8)



Part Number	Article Number	Pipe Size	NB/DN	Outer Diameter OD	Hole Size HS	A	B	Static Load F	Certifications
Material: Steel – Finish: Electrogalvanized									
5100050EG	179325	1/2"	15	21.0 mm	11 mm	216 mm	25 mm	1,100 N	–
5100075EG	179326	3/4"	20	27.0 mm	11 mm	229 mm	25 mm	1,100 N	–
5100100EG	179327	1"	25	34.0 mm	11 mm	229 mm	25 mm	1,100 N	–
5100125EG	179328	1 1/4"	32	43.0 mm	11 mm	240 mm	25 mm	1,100 N	–
5100150EG	179329	1 1/2"	40	48.0 mm	11 mm	245 mm	25 mm	1,100 N	–
5100200EG	179330	2"	50	60.0 mm	11 mm	260 mm	30 mm	1,100 N	cULus
5100250EG	179370	2 1/2"	65	73.0 mm	11 mm	280 mm	30 mm	1,700 N	cULus
5100300EG	179332	3"	80	89.0 mm	11 mm	298 mm	30 mm	2,400 N	cULus
5100350EG	–	3 1/2"	90	101.6 mm	14 mm	320 mm	30 mm	2,950 N	cULus
5100400EG	179333	4"	100	114.0 mm	14 mm	330 mm	38 mm	3,600 N	cULus
5100500EG	179372	5"	125	141.3 mm	14 mm	368 mm	38 mm	5,200 N	cULus
5100600EG	179371	6"	150	168.3 mm	14 mm	406 mm	51 mm	6,900 N	cULus
5100800EG	179336	8"	200	219.0 mm	17 mm	464 mm	51 mm	11,100 N	cULus
5101000EG	179337	10"	250	273.0 mm	17 mm	524 mm	51 mm	11,100 N	–
5101200EG	179338	12"	300	324.0 mm	17 mm	569 mm	51 mm	12,000 N	–
5101400EG	179339	14"	350	356.0 mm	17 mm	613 mm	51 mm	12,000 N	–
5101600EG	179340	16"	400	406.0 mm	21 mm	708 mm	64 mm	13,000 N	–
5101800EG	179341	18"	450	457.0 mm	21 mm	757 mm	64 mm	13,000 N	–
5102000EG	179342	20"	500	508.0 mm	21 mm	819 mm	64 mm	13,000 N	–
5102400EG	179343	24"	600	610.0 mm	23 mm	918 mm	76 mm	13,000 N	–



Part Number	Article Number	Pipe Size	NB/DN	Outer Diameter OD	Hole Size HS	A	B	Static Load F	Certifications
Material: Steel – Finish: Hot-Dip Galvanized									
5100050HD	–	1/2"	15	21.0 mm	11 mm	216 mm	25 mm	1,100 N	–
5100100HD	179445	1"	25	34.0 mm	11 mm	229 mm	25 mm	1,100 N	–
5100125HD	179449	1 1/4"	32	43.0 mm	11 mm	240 mm	25 mm	1,100 N	–
5100150HD	–	1 1/2"	40	48.0 mm	11 mm	245 mm	25 mm	1,100 N	–
5100200HD	179492	2"	50	60.0 mm	11 mm	260 mm	30 mm	1,100 N	cULus
5100250HD	–	2 1/2"	65	73.0 mm	11 mm	280 mm	30 mm	1,700 N	cULus
5100300HD	179493	3"	80	89.0 mm	11 mm	298 mm	30 mm	2,400 N	cULus
5100400HD	179494	4"	100	114.0 mm	14 mm	330 mm	38 mm	3,600 N	cULus
5100500HD	–	5"	125	141.3 mm	14 mm	368 mm	38 mm	5,200 N	cULus
5100600HD	179495	6"	150	168.3 mm	14 mm	406 mm	51 mm	6,900 N	cULus
5100800HD	179496	8"	200	219.0 mm	17 mm	464 mm	51 mm	11,100 N	cULus
Material: Stainless Steel 304									
5100050S4	–	1/2"	15	21.0 mm	11 mm	216 mm	25 mm	1,100 N	–
5100075S4	–	3/4"	20	27.0 mm	11 mm	229 mm	25 mm	1,100 N	–
5100100S4	–	1"	25	34.0 mm	11 mm	229 mm	25 mm	1,100 N	–
5100125S4	–	1 1/4"	32	43.0 mm	11 mm	240 mm	25 mm	1,100 N	–
5100150S4	–	1 1/2"	40	48.0 mm	11 mm	245 mm	25 mm	1,100 N	–
5100200S4	–	2"	50	60.0 mm	11 mm	260 mm	30 mm	1,100 N	–
5100250S4	–	2 1/2"	65	73.0 mm	11 mm	280 mm	30 mm	1,700 N	–
5100300S4	–	3"	80	89.0 mm	11 mm	298 mm	30 mm	2,400 N	–
5100400S4	–	4"	100	114.0 mm	14 mm	330 mm	38 mm	3,600 N	–
5100500S4	–	5"	125	141.3 mm	14 mm	368 mm	38 mm	5,200 N	–
5100600S4	–	6"	150	168.3 mm	14 mm	406 mm	51 mm	6,900 N	–
5100800S4	–	8"	200	219.0 mm	17 mm	464 mm	51 mm	11,100 N	–
5101000S4	–	10"	250	273.0 mm	17 mm	524 mm	51 mm	11,100 N	–

Clamp is fitted for steel pipe and should be installed below a coupling or shear lug, with bolts torqued to recommended value.
Slotted holes and bolts for pipe sizes up to 12" only.

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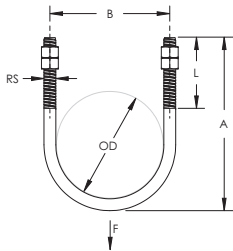
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150M Standard U-Bolt



- Pipe support for general piping applications
- Comes complete with 4 nuts (2 installed on each end)
- Conforms with Federal Specification WW-H-171 (Type 24), Manufacturers Standardization Society ANSI®/MSS-SP-58 (Type 24)



Part Number	Pipe Size	Outer Diameter OD	Rod Size RS	Screw Length L	A	B	Static Load F
Material: Steel – Finish: Plain							
150M0050PL	1/2"	21.3 mm	1/4"	60.5 mm	88.90 mm	27.7 mm	1,930 N
150M0075PL	3/4"	26.7 mm	1/4"	60.5 mm	90.40 mm	33.0 mm	1,930 N
150M0100PL	1"	33.4 mm	1/4"	60.5 mm	93.70 mm	39.8 mm	1,930 N
150M0125PL	1 1/4"	42.2 mm	3/8"	60.5 mm	104.80 mm	51.7 mm	4,800 N
150M0150PL	1 1/2"	48.3 mm	3/8"	63.5 mm	109.60 mm	57.8 mm	4,800 N
150M0200PL	2"	60.3 mm	3/8"	63.5 mm	122.38 mm	69.9 mm	4,800 N
150M0250PL	2 1/2"	73.0 mm	1/2"	76.2 mm	146.10 mm	85.7 mm	8,900 N
150M0300PL	3"	88.9 mm	1/2"	76.2 mm	160.30 mm	101.6 mm	8,900 N
150M0400PL	4"	114.3 mm	1/2"	76.2 mm	185.70 mm	127.0 mm	8,950 N
150M0500PL	5"	141.3 mm	1/2"	76.2 mm	211.10 mm	154.0 mm	8,950 N
150M0600PL	6"	168.3 mm	5/8"	95.3 mm	257.10 mm	184.2 mm	14,350 N
150M0800PL	8"	219.1 mm	5/8"	95.3 mm	308.00 mm	235.0 mm	14,350 N
150M1000PL	10"	273.1 mm	3/4"	101.6 mm	369.80 mm	292.1 mm	21,450 N
150M1200PL	12"	323.9 mm	7/8"	108.0 mm	430.10 mm	346.1 mm	29,900 N
150M1400PL	14"	355.6 mm	7/8"	108.0 mm	461.90 mm	377.8 mm	29,900 N
150M1600PL	16"	406.4 mm	7/8"	108.0 mm	512.70 mm	428.6 mm	29,900 N
150M1800PL	18"	457.2 mm	1"	121.0 mm	576.30 mm	482.6 mm	39,350 N
Material: Steel – Finish: Electrogalvanized							
150M0050EG	1/2"	21.3 mm	1/4"	60.5 mm	88.90 mm	27.7 mm	1,930 N
150M0075EG	3/4"	26.7 mm	1/4"	60.5 mm	90.40 mm	33.0 mm	1,930 N
150M0100EG	1"	33.4 mm	1/4"	60.5 mm	93.70 mm	39.8 mm	1,930 N
150M0125EG	1 1/4"	42.2 mm	3/8"	60.5 mm	104.80 mm	51.7 mm	4,800 N
150M0150EG	1 1/2"	48.3 mm	3/8"	63.5 mm	109.60 mm	57.8 mm	4,800 N
150M0200EG	2"	60.3 mm	3/8"	63.5 mm	122.38 mm	69.9 mm	4,800 N
150M0250EG	2 1/2"	73.0 mm	1/2"	76.2 mm	146.10 mm	85.7 mm	8,900 N



Part Number	Pipe Size	Outer Diameter OD	Rod Size RS	Screw Length L	A	B	Static Load F
150M0300EG	3"	88.9 mm	1/2"	76.2 mm	160.30 mm	101.6 mm	8,900 N
150M0400EG	4"	114.3 mm	1/2"	76.2 mm	185.70 mm	127.0 mm	8,950 N
150M0500EG	5"	141.3 mm	1/2"	76.2 mm	211.10 mm	154.0 mm	8,950 N
150M0600EG	6"	168.3 mm	5/8"	95.3 mm	257.10 mm	184.2 mm	14,350 N
150M0800EG	8"	219.1 mm	5/8"	95.3 mm	308.00 mm	235.0 mm	14,350 N
150M1000EG	10"	273.1 mm	3/4"	101.6 mm	369.80 mm	292.1 mm	21,450 N
150M1200EG	12"	323.9 mm	7/8"	108.0 mm	430.10 mm	346.1 mm	29,900 N
150M1400EG	14"	355.6 mm	7/8"	108.0 mm	461.90 mm	377.8 mm	29,900 N
150M1600EG	16"	406.4 mm	7/8"	108.0 mm	512.70 mm	428.6 mm	29,900 N
150M1800EG	18"	457.2 mm	1"	120.7 mm	576.30 mm	482.6 mm	39,350 N
Material: Stainless Steel 304							
150M0050S4	1/2"	21.3 mm	1/4"	60.5 mm	88.90 mm	27.7 mm	1,930 N
150M0075S4	3/4"	26.7 mm	1/4"	60.5 mm	90.40 mm	33.0 mm	1,930 N
150M0100S4	1"	33.4 mm	1/4"	60.5 mm	93.70 mm	39.8 mm	1,930 N
150M0125S4	1 1/4"	42.2 mm	3/8"	60.5 mm	104.80 mm	51.7 mm	4,800 N
150M0150S4	1 1/2"	48.3 mm	3/8"	63.5 mm	109.60 mm	57.8 mm	4,800 N
150M0200S4	2"	60.3 mm	3/8"	63.5 mm	122.38 mm	69.9 mm	4,800 N
150M0250S4	2 1/2"	73.0 mm	1/2"	76.2 mm	146.10 mm	85.7 mm	8,900 N
150M0300S4	3"	88.9 mm	1/2"	76.2 mm	160.30 mm	101.6 mm	8,900 N
150M0400S4	4"	114.3 mm	1/2"	76.2 mm	185.70 mm	127.0 mm	8,950 N
150M0500S4	5"	141.3 mm	1/2"	76.2 mm	211.10 mm	154.0 mm	8,950 N
150M0600S4	6"	168.3 mm	5/8"	95.3 mm	257.10 mm	184.2 mm	14,350 N
150M0800S4	8"	219.1 mm	5/8"	95.3 mm	308.00 mm	235.0 mm	14,350 N
150M1000S4	10"	273.1 mm	3/4"	101.6 mm	369.80 mm	292.1 mm	21,450 N
150M1200S4	12"	323.9 mm	7/8"	108.0 mm	430.10 mm	346.1 mm	29,900 N
150M1400S4	14"	355.6 mm	7/8"	108.0 mm	461.90 mm	377.8 mm	29,900 N
150M1600S4	16"	406.4 mm	7/8"	108.0 mm	512.70 mm	428.6 mm	29,900 N

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ORIGINAL



Transmittal To SDC (Materials)

☐ Submittal
☒ Resubmittal

Date 09-02-17	Project Code SDC 1335TVC Contr.	Project Title AL-AZHAR TV CHANNEL BUILDING	Trans. No. 1335TVC- SD01-MS-M- 0030-00	Department AR CE/SE ME EE
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To ☒ Resident Engineer ☒ Head Office ☐ Others	From
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Contractor Use

Item No.	Division	Item Description (Name, Type, Size, Capacity, Specific Use, Etc.)	Manufacturer or Designer	Dwg. No., Catalog No. Brochure No., Others	No. of Copies
1	M	Hangers and supports for firefighting system	ERICO	2 Catalogue + 1 CD	1

Submitted by Eng. M. Abo-Alkassem Name			Project Manager Title	Signature	Enclosures: Forl <i>[Signature]</i> Items: 2-2-17
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Saudi Diyar Use

Item # 1	Code B	Reviewed By Mahmoud Afifi							
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Action Code			
A Approved ☐	B Approved As Noted ☒	C Noted for Resubmitted ☐	D Reject ☐

Special Instructions * ERIG UL FM for Hangers and supports for fire fighting system is approved.
--

Reviewed by: Mustafa Shaaban Name	Lead plumbing Eng. Title	Signature <i>[Signature]</i>	Date 27/02/2017
Signed off by:			Date
Name	Title	Signature	

شهادة اعتماد فنى

Technical Accreditation Certificate

To Whom It May Concern

الى من يهمه الأمر

Center of Planning and Architectural Studies (CPAS) "Prof. Dr. Abdelbaki Ibrahim & Partners" Expertise House of Engineering Consultancy witnesses that: Kir Mary company for Engineering Supplies technical file in the field of: supply of fire Fighting systems was studied, for products: valves ,Fire Hose Cabinet for brand :KM , SPP Pumps ,Hangers made in USA , Bristol Pumps ,Tiger Steel ERW pipes made in UAE - LEDE Valves for fighting , Plumbing works and Grooved fitting ,MECH threaded fittings 300 di, viking fire hydrants and sprinklers , zurn Drains , water hammer and hose bib upon the company's request.

يشهد من مركز الدراسات التخطيطية والمعمارية "أ.د. عبد الباقي إبراهيم وشركاه" - بيت خبرة في الهندسة الاستشارية بأن شركة: كير ماري للتوريدات الهندسية، قد درست ملفها الفني في مجال: توريد أنظمة إطفاء الحريق لمعدات: المحابس ماركة KM - صناديق الحريق ماركة KM - مضخات spp - هناجر صناعة USA - مضخات برينسول ومواسير ماركة TIGER - مضخات STEEL صناعة UAE - (محابس حريق - محابس صرف - وصلات جر وفد) ليدى - وصلات فلافوط ماركة MECH - DI 300 - (عساكر الحريق ومرشاشات) فايكيغ ، وذلك بناءً على طلب الشركة.

By examining the technical file, documents and certificates submitted by Royal Top Company, we hereby confirm that they comply with the technical and engineering quality requirements. The aforementioned products are, thus, listed in the Materials and Vendors Lists approved by CPAS in its various projects inside/ outside the Arab Republic of Egypt for a period of **one calendar year** starting from the date of issue listed below.

وطبقاً للملف الفني والمستندات والشهادات المقدمة من الشركة فهي مستوفاة للمتطلبات الفنية وتحقق اشتراطات الجودة الهندسية ويتم إدراجها ضمن قائمة الخامات والمواد المعتمدة لدى المركز في مشروعاته المتنوعة داخل/ خارج جمهورية مصر العربية وذلك لمدة سنة ميلادية تبدأ من تاريخ الإصدار المدرج أدناه.

Noteworthy, this certificate is not considered individually for the approval in any project except after referring to the technical approval request for the project.

علماً بأنه لا يعتد بذلك الشهادة منفردة للاعتماد بأي مشروع إلا بعد الرجوع لطلب الاعتماد الفني الخاص بالمشروع.

In witness whereof, we issued this certificate,

وهذه شهادة منا بذلك...

Date of Issue: Tuesday 28/10/2025

صدر في يوم الثلاثاء الموافق ٢٨/١٠/٢٠٢٥

Ven-Cer-2025-010-AG

P.O. Box : 6 Saray - El-Kobba - P.C. : 11712

14 El-Sobky st. - Heliopolis - Cairo - Egypt

Tel : (202) 24190 271 / 843 / 744 - Fax: (202) 22919 341

E-mail : info@cpas-egypt.com - www.cpas-egypt.com

ص.ب: 6 سراي القبة - رمز بريدي : 11712

14 شارع السبكي - خلف نادى هليوبوليس

مصر الجديدة - القاهرة - جمهورية مصر العربية

ت : 24190 271 / 843 / 744 (202)- ف : 341



Project ALEXANDRIA INTERNATIONAL AIRPORT	Employer:  EGYPTIAN AIRPORTS CO.	Request No. ALY MR-M-213000-03-Rev01 MR-M-009-Rev01
Engineer:  African Consultant Office	Contactor:  SAUDI BINLADIN GROUP JV الشركة الدولية لتطوير العمران International For Development	Date 18-05-2015

Submittal for Approval of Materials



1. Material description :Hangers and Supports for fire fighting system.

A- Samples: Clevis Hanger(3"-4")-Loop Hanger(2"-11/2"-11/4") .

B- Catalogues: Original Manufacture Data Sheet , Certificates and Compliance sheet -(Supplier previous works).

Area of application : all project

Drawing ref.

B.O.Q. Ref. No: F21130021

Specification

21 30 00

Standards : Refer To Specs

Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate.

2. Manufacturer / supplier

Company Name : KIRMARY/ERICO

Address : USA

Local Agent : KIRMARY

3. Delivery :

Country of origin :

USA

Availability

☐ Locally Manufactured

☒ Overseas

We certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated; also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.

Submitted by Eng / Hosam Mashtawy

Signature

Representative comments:

2015/5/18

☐ Approved

☒ Approved as noted

☐ Revise and resubmit

☐ Rejected

☐ Sample required

☐ Tests required

☐ Additional information required

☐ Manufacturer's guarantee Required

Consultant

Client

يتم موافقة العميل على تقديم العينات
من خلال المكتب وموافقة العميل
على تقديم العينات من خلال المكتب
وتوريد العينات لجميع الاقسام
المختصة مع توفير جميع الاوراق
(F.M. و...) لجميع الاقسام
المختصة

يتم موافقة العميل على تقديم العينات
من خلال المكتب وموافقة العميل
على تقديم العينات من خلال المكتب
وتوريد العينات لجميع الاقسام
المختصة مع توفير جميع الاوراق
(F.M. و...) لجميع الاقسام
المختصة

Signature

Date : 24/05/2015

Signature

Date : 24/5/2015

Project Name:- Al Hammam Agricultural Drainage Water treatment plant.

MOL OC AC HAC
JOINT VENTURE



19 DEC 2021



Contractor:-
MOL-OC-AC-HAC-JV

CONSULTANT:-
Katib&Alami (K&A)

Client:-
GOE (Water Departments)

Material Submittal

From	MOL-OC-AC-HAC-JV			To	Katib&Alami (K&A)	
Transmittal No	NDWTP-MT-CV-ME-KA-ON-0286	Rev	00	Date	18-Dec-21	
Subject	SPRINKLERS-HYDRANTS-GROOVED FITTINGS-VALVES- FIRE HYDRANT- THREADED FITTINGS- FIRE HOSE CABINETS- SWITCHES-DRAINS- AIR VENT- HANGERS			Attachment	Data sheet , pre approval & cheek	
Manufacturer:	VIKING-LEDE-MECH-ZYFIRE-SYSTEM SENSOR-POTTER-ZURN-VALMATIC-ERICO	Supplier	KIRMARY	Area Of Application	ALL	
Discipline	☐ Civil / Str.	☐ Arch.	☐ Elect	☒ Mech	☐ Other	
Ser	Description				No of Copies	
1	PRE-QUALIFICATION FOR KIRMARY & DATA SHEETS FOR PRODUCTS				2	

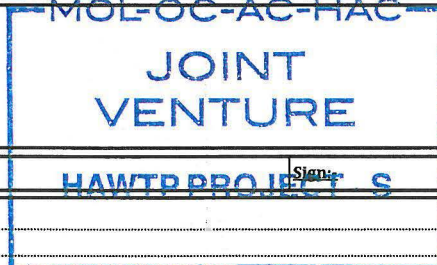
Contractor Commitment:-

the document attached has been reviewed regarding to contract and consider acceptable to be used in the project

Contractor

on shore civil manager
ENG. Nagy Azmy

(Signature of ENG. Nagy Azmy)



PROJECT DIRECTOR
ENG. Waleed Fahmy

(Signature of ENG. Waleed Fahmy)

Consultant Receiving

Name:-

Sign:-

Date:-

Consultant Remarks

** Refer to our Revised Sheet for Comments*

Assigned Consultant Engineer

Name:-

Sign:-

Date

A

☐

Approved

B

☒

Approved with comments, the work can proceed according to notes

C

☐

Re-submit after rectify comments

D

☐

Rejected

Consultant Approval

Name:-

Contractor Receiving

Name:-

New Date: VTP
In ElDaba: Date:

Distribution before approval

Consultant

Client

Distribution After approval

Client

Contractor

Consultant

Civil

Arch

Elect

HVAC

Mech

Planning

Q.S



VFXT7.EX2452 Hangers, Pipe Certified for Canada

[Page Bottom](#)

Hangers, Pipe Certified for Canada

[See General Information for Hangers, Pipe Certified for Canada](#)
ERICO INTERNATIONAL CORPORATION

EX2452

34600 SOLON RD
SOLON, OH 44139-2631 USA

Pipe Hanger:

Model	Hanger Type	Rod Size	NPS*	Comments
Figure 315	C-Clamp	3/8 in.	Up to 4	Set Screw Size, 3/8 in
Figure 315M	C-Clamp	10 mm	Up to 4	Set Screw Size, 3/8 in
Figure 547	C-Clamp	3/8 in.	Up to 4	—
Figure 550	C-Clamp	3/8 in.	Up to 4	Set Screw size 3/8-16UNC in.
Model SBC	Top Beam Clamp	3/8	Up to 4	—
Figure 56	Top Beam Clamp	3/8 in.	Up to 4	—
Figure 305	Top Beam Clamp	3/8 in.	Up to 4	EG, PL
Figure 305	Top Beam Clamp	1/2 in.	Up to 8	EG, PL
Model 280	Universal Beam Clamp	3/8 in.	Up to 4	EG, HD, PL; Set Screw Size, 3/8-16UNC in.
Model 280	Universal Beam Clamp	1/2 in.	Up to 8	EG, HD, PL; Set Screw Size, 1/2-13UNC in.
Model 290	Universal Beam Clamp	3/8 in.	Up to 4	EG, HD, PL; Set Screw Size, 3/8-16UNC in.
Model 290	Universal Beam Clamp	1/2 in.	Up to 8	EG, HD, PL Finish; Set Screw Size, 1/2-13UNC in.
Figure 300	Universal Beam Clamp	3/8 in.	Up to 4	EG, PL; Set Screw Size, 3/8-16UNC in
Figure 300	Universal Beam Clamp	1/2 in.	Up to 8	EG, PL; Set Screw Size, 7/16-14UNC in.
Figure 300	Universal Beam Clamp	5/8 in.	Up to 10	EG, PL; Set Screw Size, 7/16-14UNC in.
Figure 300	Universal Beam Clamp	3/4 in.	Up to 10	EG, PL; Set Screw Size, 7/16-14UNC in.
Figure 300	Universal Beam Clamp	7/8 in.	Up to 12	EG, PL; Set Screw Size, 7/16-14UNC in.
Figure 300M	Universal Beam Clamp	10 mm	Up to 4	EG, PL; Set Screw Size, 3/8-16UNC in
Figure 300M	Universal Beam Clamp	12 mm	Up to 8	EG, PL; Set Screw Size, 7/16-14UNC in.
Figure 300M	Universal Beam	16 mm	Up to 8	EG, PL; Set Screw Size, 7/16-14UNC in.

	Clamp			
Figure 310	Universal Beam Clamp	3/8 in.	Up to 4	EG, PL; Set Screw Size, 3/8-16UNC in
Figure 310	Universal Beam Clamp	1/2 in.	Up to 8	EG, PL; Set Screw Size, 1/2-13UNC in.
Figure 310M	Universal Beam Clamp	10 mm	Up to 4	—
Figure 310M	Universal Beam Clamp	12 mm	Up to 8	—
Model CRLB37EG	Universal Beam Clamp	3/8 in.	Up to 4	EG
Model CRLBM10EG	Universal Beam Clamp	10 mm	Up to 4	EG
CRL37EG	"L" Bracket	3/8 in.	Up to 4	EG
CRLM10EG	"L" Bracket	10 mm	Up to 4	EG
Figure 34SL	Restraining Strap	—	—	For use with C-Clamps and Beam Clamps
Figure 124	Bar Joist Clip	3/8 in.	Up to 4	—
Figure 58	Side Beam Attachment	3/8 in.	Up to 4	EG, PL
Figure 58W	Side Beam Attachment	3/8 in.	Up to 4	EG, PL
Figure 328	Side Beam Attachment	3/8 in.	Up to 4	Set Screw size, 1/2 in.
Figure 328	Side Beam Attachment	10 mm	Up to 4	Set Screw size, 1/2 in.
Figure 329	Side Beam Attachment	3/8 in.	Up to 4	—
Figure 329	Side Beam Attachment	10 mm	Up to 4	—
Figure 37	Eyelet	3/8 in.	Up to 4	HD
Figure 37	Eyelet	1/2 in.	Up to 8	HD
Figure 37M	Eyelet	10 mm	Up to 4	HD
Figure 37M	Eyelet	12 mm	Up to 8	HD
Figure 38	Offset Eyelet	3/8 in.	Up to 4	EG
Figure 38M	Offset Eyelet	10 mm	Up to 4	EG
Figure PH6FP	Multi-flange Rod Hanger	3/8 in.	Up to 3	For use on C or Z purlins having 0.059 in. minimum steel thickness
Figure PHSW6FP	Multi-flange Rod Hanger	3/8 in.	Up to 3	For use on C or Z purlins having 0.059 in. minimum steel thickness
Figure PH10MFP	Multi-flange Rod Hanger	10 mm	Up to 3	For use on C or Z purlins having 0.059 in. minimum steel thickness
Figure PHSW10MFP	Multi-flange Rod Hanger	10 mm	Up to 3	For use on C or Z purlins having 0.059 in. minimum steel thickness
Figure 355	Concrete Insert	3/8 in.	Up to 4	—
Figure 355	Concrete Insert	1/2, 5/8, 3/4 in.	Up to 6	—
Model EPB Plus	Band Hanger	3/8	1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4	EG
Model EPB Plus	Band Hanger	1/2	5, 6	EG

Model EPB Plus	Band Hanger	5/8	8	EG
Figure 1	Band Hanger	3/8 in.	1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4	HD
Figure 1M	Band Hanger	10 mm	1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4	HD
Figure 20	Band Hanger	3/8 in.	1/2, 3/4, 1, 1-1/4, 1-1/2, 2	CG
Figure 20	Band Hanger	1/2 in.	2-1/2, 3, 4, 6, 8	CG
Figure 100	Band Hanger	3/8 in.	1/2, 3/4, 1, 1-1/4, 1-1/2, 2	—
Figure 100	Band Hanger	1/2 in.	2-1/2, 3, 3-1/2	—
Figure 100	Band Hanger	5/8 in.	4, 5	—
Figure 100	Band Hanger	3/4 in.	6	—
Figure 100	Band Hanger	7/8 in.	8	—
Figure 100M	Band Hanger	10 mm	1/2, 3/4, 1, 1-1/4, 1-1/2, 2	—
Figure 100M	Band Hanger	12 mm	2-1/2, 3, 3-1/2	—
Figure 100M	Band Hanger	16 mm	4, 5	—
Figure 100M	Band Hanger	20 mm	6	—
Figure 100M	Band Hanger	24 mm	8	—
Figure 112	Band Hanger	3/8	1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4	EG
Figure 112	Band Hanger	1/2	5, 6, 8	EG
Figure 115	Band Hanger	3/8 in.	1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4	EG, HD, FL
Figure 115	Band Hanger	1/2 in.	5, 6, 8	EG, HD, FL
Figure 115M	Band Hanger	10 mm	1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4	EG, HD, FL
Figure 115M	Band Hanger	12 mm	5, 6, 8	EG, HD, FL
Model 115N	Band Hanger	3/8 in.	1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4	EG, HD, FL
Model 115N	Band Hanger	1/2 in.	5, 6, 8	EG, HD, FL
Model 115N	Band Hanger	10 mm	1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4	EG, HD, FL
Model 115N	Band Hanger	12 mm	5, 6, 8	EG, HD, FL
Figure 130	Band Hanger	3/8 in.	1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4	HD
Figure 130	Band Hanger	1/2 in.	5, 6, 8	HD
Figure 130M	Band Hanger	10 mm	1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4	HD
Figure 130M	Band Hanger	12 mm	5, 6, 8	HD
Figure FCN	Band Hanger	3/8 in.	1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4	EG, HD
Figure FCN	Band Hanger	1/2 in.	5, 6, 8	EG, HD
Model 400	Clevis	1/2 in.	2-1/2, 3, 3-1/2	CG, EG, EP, FL, HD, PL, RO
Model 400	Clevis	5/8 in.	4, 5	CG, EG, EP, FL, HD, PL, RO
Model 400	Clevis	3/4 in.	6, 8	CG, EG, EP, FL, HD, PL, RO
Figure 401H	Clevis Hanger	1/2 in.	2-1/2, 3, 3-1/2	EG
Figure 401H	Clevis Hanger	5/8 in.	4, 5	EG

Figure 401H	Clevis Hanger	3/4 in.	6, 8	EG
Figure 401	Clevis Hanger	3/8 in.	1/2, 3/4, 1, 1-1/4, 1-1/2, 2	CG, EG, FL, HD, RO
Figure 401	Clevis Hanger	1/2 in.	2-1/2, 3, 3-1/2	CG, EG, FL, HD, RO
Figure 401	Clevis Hanger	5/8 in.	4, 5	CG, EG, FL, HD, RO
Figure 401	Clevis Hanger	3/4 in.	6, 8	CG, EG, FL, HD, RO
Figure 420	Clevis Hanger	3/8 in.	1/2, 3/4, 1, 1-1/4, 1-1/2, 2	CG, EG, EP, FL, HD, RO
Figure 420	Clevis Hanger	1/2 in.	2-1/2, 3, 3-1/2	CG, EG, EP, FL, HD, RO
Figure 420	Clevis Hanger	5/8 in.	4, 5	CG, EG, EP, FL, HD, RO
Figure 420	Clevis Hanger	3/4 in.	6, 8	CG, EG, EP, FL, HD, RO
Figure 410	Clevis Hanger	3/8 in.	1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4	CG, EG, FL, HD, RO
Figure 410	Clevis Hanger	1/2 in.	5, 6, 8	CG, EG, FL, HD, RO
Figure 427	Clevis Hanger	3/8 in.	1/2, 3/4, 1, 1-1/4, 1-1/2, 2	EG
Figure 427	Clevis Hanger	1/2 in.	2-1/2, 3	EG
Figure 427	Clevis Hanger	5/8 in.	4, 5	EG
Figure 427	Clevis Hanger	3/4 in.	6, 8	EG
Figure 345	Pipe Clamp	—	3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 4, 5, 6, 8	—
Figure 6365	Split Clamp	3/8 in.	1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3	With Bolt and Swivel Adjuster
Figure 6365	Split Clamp	1/2 in.	4, 5, 6, 8	With Bolt and Swivel Adjuster
Figure 135	Yook-type Band Hanger	—	1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2	EG, PL
Figure 137	Yook-type Band Hanger	—	1-1/4, 2	EG, PL
Model 510	Riser Clamp	—	2, 2-1/2, 3, 3-1/2, 4, 5, 6, 8	EG, EP, HD, RO, SS
Model 512	Riser Clamp	—	1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 4, 5, 6	EG, EP, HD, PL, RO, SS
Model 518	Riser Clamp	—	2, 2-1/2, 3, 3-1/2, 4, 5, 6, 8	PL

* NPS = Nominal pipe size

CG - indicates zinc coated

EG - indicates electro-galvanized

EP - indicates epoxy coated EG

FL - indicates felt-lined over EG

HD - indicates hot-dipped

PL - indicates plain finish

RO - indicates red oxide over EG

SS - indicates stainless steel

All part numbers may be followed by the suffix '\Rxx\', where '\xx\' is a number designating package quantity.

Trademark and/or Tradename: "CADDY"

Last Updated on 2014-08-06

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Member of the FM Global Group

Certificate of Compliance

This certificate is issued for the following:

Seismic Sway Brace Components For Automatic Sprinkler Systems Piping Attached Products

Model	Part Description	Orientation	Run Pipe Nominal Size, in.	Run Pipe Reference	Horizontal Load Ratings lb (N)				Remarks
					Installation Angle (a)				
					30° - 44°	45° - 59°	60° - 74°	75° - 90°	
CSBBRP	Pipe Clamp	Lateral	1, 1.25	LW, 10, 40	120 (535)	170 (755)	210 (935)	230 (1025)	c, d, e, g
CSBBRP	Pipe Clamp	Lateral	1, 1.25	LW, 10, 40	140 (625)	190 (845)	240 (1070)	270 (1200)	c, d, e, h
CSBBRP	Pipe Clamp	Lateral	1-1/2, 2	LW, 10, 40	140 (625)	190 (845)	240 (1070)	270 (1200)	c, d, e, g
CSBBRP	Pipe Clamp	Lateral	1-1/2, 2	LW, 10, 40	110 (490)	150 (665)	190 (845)	210 (935)	c, d, e, h
CSBEZU	Pipe Clamp	Lateral	1, 1-1/4, 1-1/2	LW, 10, 40	860 (3825)	1220 (5425)	1500 (6670)	1670 (7430)	a, c, d, e
CSBEZU	Pipe Clamp	Longitudinal	1, 1-1/4, 1-1/2	LW, 10, 40	390 (1735)	550 (2445)	670 (2980)	750 (3335)	a, c, d, e
CSBEZU	Pipe Clamp	Lateral	2, 2-1/2, 3	LW, 10, 40	1530 (6805)	2160 (9610)	2650 (11790)	2960 (13165)	a, c, d, e
CSBEZU	Pipe Clamp	Longitudinal	2, 2-1/2, 3	LW, 10, 40	520 (2315)	690 (3070)	830 (3690)	930 (4136)	a, c, d, e
CSBEZU	Pipe Clamp	Lateral	4, 5	LW, 10, 40	1570 (6985)	2220 (9875)	2720 (12100)	3030 (13480)	a, c, d, e
CSBEZU	Pipe Clamp	Longitudinal	4, 5	LW, 10, 40	630 (2800)	900 (4005)	1100 (4895)	1230 (5470)	a, c, d, e
CSBEZU	Pipe Clamp	Lateral	6	LW, 10, 40	1980 (8805)	2810 (12500)	3440 (15300)	3840 (17080)	a, c, d, e
CSBEZU	Pipe Clamp	Longitudinal	6	LW, 10, 40	730 (3245)	1000 (4450)	1230 (5470)	1370 (6095)	a, c, d, e
CSBQG	Pipe Clamp	Lateral	2.5	LW, 10, 40	1410 (6270)	2000 (8895)	2450 (10900)	2740 (12190)	b, c, d, e
CSBQG	Pipe Clamp	Lateral	3, 4	LW, 10, 40	1190 (5295)	1680 (7475)	2060 (9163)	2300 (10230)	b, c, d, e



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CSBQG	Pipe Clamp	Lateral	5, 6	LW, 10	870 (3870)	1230 (5470)	1510 (6715)	1690 (7515)	b, c, d, e
CSBQG	Pipe Clamp	Lateral	5, 6	40	970 (4315)	1370 (6095)	1680 (7475)	1870 (8320)	b, c, d, e
CSBQG	Pipe Clamp	Lateral	8	0.188, 40	790 (3515)	1110 (4940)	1360 (6050)	1520 (6760)	b, c, f
CSBQIKCL	Pipe Clamp	Lateral	1, 1-1/4, 1-1/2	LW	290 (1290)	410 (1830)	495 (2200)	550 (2445)	b, e
CSBQIKCL	Pipe Clamp	Lateral	1, 1-1/4, 1-1/2	10	150 (665)	210 (935)	280 (1245)	315 (1400)	b, d
CSBQIKCL	Pipe Clamp	Lateral	1, 1-1/4, 1-1/2	40	475 (2115)	665 (2960)	825 (3670)	925 (4115)	b, c
CSBQIKCL	Pipe Clamp	Lateral	2, 2-1/2, 3, 3-1/2	LW	390 (1735)	550 (2445)	670 (2980)	750 (3335)	b, e
CSBQIKCL	Pipe Clamp	Lateral	2, 2-1/2, 3, 3-1/2	10	350 (1555)	500 (2225)	620 (2760)	690 (3070)	b, d
CSBQIKCL	Pipe Clamp	Lateral	2, 2-1/2, 3, 3-1/2	40	490 (2180)	690 (3070)	850 (3780)	950 (4225)	b, c
CSBQIKCL	Pipe Clamp	Lateral	4	LW	470 (2090)	660 (2935)	810 (3605)	910 (4050)	b, e
CSBQIKCL	Pipe Clamp	Lateral	4	10	510 (2270)	730 (3245)	890 (3960)	990 (4405)	b, d
CSBQIKCL	Pipe Clamp	Lateral	4	40	500 (2225)	710 (3160)	870 (3870)	970 (4315)	b, c
CSBQIKCSE	Pipe Clamp	Lateral	4	LW	1370 (6095)	1940 (8630)	2380 (10590)	2260 (10055)	b, e
CSBQIKCSE	Pipe Clamp	Lateral	4	10	1280 (5695)	1810 (8050)	2220 (9875)	2480 (11030)	b, d
CSBQIKCSE	Pipe Clamp	Lateral	4	40	1290 (5740)	1820 (8095)	2230 (9920)	2490 (11075)	b, c
CSBQIKCSE	Pipe Clamp	Lateral	5, 6	LW	840 (3735)	1190 (5295)	1460 (6495)	1630 (7250)	b, e
CSBQIKCSE	Pipe Clamp	Lateral	5, 6	10	850 (3780)	1200 (5340)	1480 (6585)	1650 (7340)	b, d
CSBQIKCSE	Pipe Clamp	Lateral	5, 6	40	1060 (4715)	1510 (6715)	1840 (8185)	2060 (9165)	b, c
CSBQIKCSE	Pipe Clamp	Lateral	8	0.188	880 (3915)	1250 (5560)	1530 (6805)	1710 (7605)	b, f



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CSBQIKCSE	Pipe Clamp	Lateral	8	40	950 (4225)	1350 (6005)	1650 (7340)	1840 (8185)	b, c
CSBSTU	Pipe Clamp	Lateral	1, 1-1/4, 1-1/2	LW, 10, 40	860 (3825)	1220 (5425)	1500 (6670)	1670 (7430)	a, c, d, e
CSBSTU	Pipe Clamp	Longitudinal	1, 1-1/4, 1-1/2	LW, 10, 40	970 (4315)	720 (3200)	860 (3825)	960 (4270)	a, c, d, e
CSBSTU	Pipe Clamp	Lateral	2, 2-1/2, 3	LW, 10, 40	1530 (6805)	2160 (9610)	2650 (11790)	2960 (13165)	a, c, d, e
CSBSTU	Pipe Clamp	Longitudinal	2, 2-1/2, 3	LW, 10, 40	870 (3870)	690 (3070)	830 (3690)	930 (4136)	a, c, d, e
CSBSTU	Pipe Clamp	Lateral	4, 5	LW, 10, 40	1570 (6985)	2220 (9875)	2720 (12100)	3030 (13480)	a, c, d, e
CSBSTU	Pipe Clamp	Longitudinal	4, 5	LW, 10, 40	1550 (6895)	1390 (6185)	1680 (7475)	1870 (8320)	a, c, d, e
CSBSTU	Pipe Clamp	Lateral	6	LW, 10, 40	1980 (8805)	2810 (12500)	3440 (15300)	3840 (17080)	a, c, d, e
CSBSTU	Pipe Clamp	Longitudinal	6	LW, 10, 40	1470 (6540)	1170 (5205)	1410 (6270)	1570 (6985)	a, c, d, e
CSBSTU	Pipe Clamp	Lateral	8, 10	0.188, 40	2040 (9075)	2890 (12855)	3540 (15745)	3950 (17570)	a, c, f
CSBSTU	Pipe Clamp	Longitudinal	8, 10	0.188, 40	1200 (5340)	1700 (7560)	2090 (9295)	2330 (10365)	a, c, f

Seismic Sway Brace Components For Automatic Sprinkler Systems Structure Attached Products

Model	Part Description	Joist or Beam Thickness, in (mm)	Orientation	Horizontal Load Ratings lb (N)				Remarks
				Installation Angle (a)				
				30° - 44°	45° - 59°	60° - 74°	75° - 90°	
CSBBARJ	Beam Clamp	¼ - ½ (6.3 – 12.7)	Lateral	1740 (7740)	1710 (7605)	2060 (9165)	2300 (10230)	a
CSBBARJ	Beam Clamp	¼ - ½ (6.3 – 12.7)	Longitudinal	1410 (6270)	2110 (9385)	2540 (11300)	2830 (12590)	a
CSBBRS1	Structure Attached	Steel - 12 Ga. 0.1094 – 0.50 inch (2.78 – 12.7 mm)	N/A	220 (980)	310 (1380)	210 (935)	210 (935)	g
CSBBRS1	Structure Attached	Steel - 12 Ga. 0.1094 – 0.50 inch	N/A	210	290	200	220	h



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		(2.78 – 12.7 mm)		(935)	(1290)	(890)	(980)	
CSBBRS2	Structure Attached	N/A	N/A	210 (935)	290 (1290)	200 (890)	210 (935)	g, h
CSBBRS3	Structure Attached	N/A	N/A	320 (1425)	310 (1380)	190 (845)	210 (935)	k
CSBBRS3	Structure Attached	Steel – 16 Ga (0.0598 inch (1.5 mm)) Minimum	N/A	320 (1425)	310 (1380)	190 (845)	210 (935)	j
CSBBRS3	Structure Attached	0.25 – 0.75 (6 – 19mm)	Lateral	120 (535)	170 (755)	210 (935)	230 (1025)	g, h, i
CSBBRS3	Structure Attached	0.25 – 0.75 (6 – 19mm)	Longitudinal	140 (625)	200 (890)	230 (1025)	260 (1155)	g, h, i
CSBBC	Beam Clamp	0.25 – 0.75 (6 – 19mm)	Lateral	1190 (5295)	1680 (7475)	1160 (5160)	1280 (5695)	a
CSBBC	Beam Clamp	0.25 – 0.75 (6 – 19mm)	Longitudinal	1620 (7205)	1710 (7605)	1010 (4495)	1110 (4940)	a
CSBIB	Beam Clamp	0.25 – 1-1/4 Thick (6.3 – 31 mm) Thick 4 – 18 inch wide (100 – 455 mm wide)	Lateral	1620 (7205)	2300 (10230)	2820 (12545)	3140 (13965)	a
CSBIB	Beam Clamp	0.25 – 1-1/4 Thick (6.3 – 31 mm) Thick 4 – 18 inch wide (100 – 455 mm wide)	Longitudinal	1620 (7205)	1710 (7605)	1010 (4495)	1110 (4940)	a
CSBUNIV	Structure Attached	N/A	N/A	1620 (7205)	2300 (10230)	2820 (12545)	3140 (13965)	a

Remarks:

- FM Approved when used with 1", 1-1/4", 1-1/2", or 2" (DN25, DN32, DN40, DN50) NPS Schedule 40, GB/T 3091, EN 10255 (Heavy), AS 1074 Heavy or JIS G3454 brace pipe.
- FM Approved when used with 1" and 1-1/4" (DN 25 and DN32) NPS Schedule 40, AS 1074 Heavy, GB/T 3091, EN 10255 (Heavy), or JIS G3454 brace pipe.
- Load ratings for Schd 40 above may also be applied to AS 1074 Heavy, GB/T 3091, EN 10255 (Heavy), and JIS G3454 pipe.
- Load ratings for Schd 10 above may also be applied to AS 1074 Medium, GB/T 3091, EN 10255 (Medium or Heavy), JIS G3452, FM Approved Thinwall, and Schd 40 pipes unless otherwise indicated.
- Load ratings for LW above refers to FM Approved Lightwall Pipe, commonly referred to as "Schedule 7". These ratings may also be applied to AS 1074 Lightwall, EN 10255 L, EN 10220, and GB/T 8163 pipe unless otherwise specified.
- Load ratings for "0.188 wall" above may be applied to any thicker walled pipe unless otherwise specified.
- Load ratings based on the use of a 3/8"-16 UNC (M10 x 1.5) threaded rod as the brace member.
- Load ratings based on the use of 1/2"-13UNC (M12 x 1.75) threaded rod as the brace member.



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i. Load ratings based on the use of a Model 300 Beam Clamp (3/8"-16UNC / M10 x 1.5 Bolt) as means for attachment to structural member.

j. Load ratings based on the use of 3/8"-16 UNC (M10 x 1.5) threaded fastener as the attachment fastener to the structural member.

k. Load ratings based on the use of 3/8"-16 UNC (M10 x 1.5) threaded fastener as the attachment fastener to a concrete insert

Prepared for:

ERICO International Corp
34600 Solon Rd
Solon, OH 44139
United States

FM Approvals Class: 1951

Approval Identification:	0003034090	Approval Granted: June 10, 2009
	0003042360	Approval Granted: December 12, 2011
	0003044398	Approval Granted: December 15, 2011

Supersedes previously issued Certificates of Compliance for the above Project IDs

To verify the availability of the Approved product, please refer to www.approvalguide.com

Said Approval is subject to satisfactory field performance, continuing Surveillance Audits, and strict conformity to the constructions as shown in the Approval Guide, an online resource of FM Approvals.

A handwritten signature in black ink, appearing to read 'Richard B. Dunne', is written over a white rectangular background.

Richard B. Dunne
Manager -Fire Protection
FM Approvals
1151 Boston-Providence Turnpike
Norwood, MA 02062

July 9, 2014
Date



Member of the FM Global Group

Pipe Hangers

Pipe hangers are used to support a sprinkler piping system from the building structure. Two or more listed components may be required to form a complete hanger. The specific components required depend upon the type of building construction and the pipe size.

Pipe Hangers

Product Designation	Hanger Rod Size, in. (mm)	Component Description	For Nominal Pipe Sizes, in. (mm)	Remarks
1	3/8 (10)	Loop Hanger	3/4 through 4	-
37	3/8 (10)	Eye Socket	3/4 through 4	-
37	1/2 (12)	"	2 1/2 through 6	-
38	3/8 (10)	Offset Eye Socket	3/4 through 4	-
100	3/8 (10)	Adjustable Swivel Hanger	3/4 through 2	-
100	1/2 (12)	"	2 1/2, 3 1/2	-
100	5/8 (16)	"	4, 5	-
100	3/4 (19)	"	6	-
100	7/8 (22)	"	8	-
115	3/8 (10)	Pipe Hanger	3/4, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3, 3 1/2, 4	EG, HD, FL
115	1/2 (12)	Pipe Hanger	5, 6, 8	EG, HD, FL
130	3/8 (10)	"	3/4 through 4	-
130	1/2 (12)	"	5 through 8	-
135	-	"Yook" Loop	3/4 through 4	d
135CT	-	"	3/4 through 2	e
137	-	"	3/4 through 2	f
280	3/8 (10)	Beam Clamp	3/4 through 4	PL, EG
280	1/2 (12)	Beam Clamp	5 through 8	PL, EG
290	3/8 (10)	Beam Clamp	3/4 through 4	PL, EG
290	1/2 (12)	Beam Clamp	5 through 8	PL, EG

300	3/8 (10)	"	3/4 through 4	PL, EG
300	1/2 (12)	"	3/4 through 8	PL, EG
TK 300-M10 P1	(10)	"	(20) through (100)	EG
TK 300-11MM P1	(10)	"	(20) through (100)	EG
TK 300M-11MM P1	(10)	"	(20) through (100)	EG
TK 300-M12 P1	(12)	"	(20) through (200)	EG
TK 300-13MM P1	(12)	"	(20) through (200)	EG
TK 300M-13MM P1	(12)	"	(20) through (100)	EG
300D	3/8 (10)	"	3/4 through 4	PL, HD, EG
300D	1/2 (12)	"	3/4 through 8	PL, HD, EG
310	3/8 (10)	"	3/4 through 4	PL, EG
310	1/2 (12)	"	3/4 through 8	PL, EG
310D	3/8 (10)	"	3/4 through 4	PL, HD, EG
310D	1/2 (12)	"	3/4 through 8	PL, HD, EG
BTK 310-M10 P1	(10)	"	(20) through (100)	EG
BTK 310-11MM P1	(10)	"	(20) through (100)	EG
BTK 310M-11MM P1	(10)	"	(20) through (100)	EG
BTK 310-M12 P1	(12)	"	(20) through (200)	EG
BTK 310-13MM P1	(12)	"	(20) through (200)	EG
BTK 310M-13MM P1	(12)	"	(20) through (100)	EG
315	3/8 (10)	Purlin Klif Klamp	3/4 through 4	PL, EG, HD, CG
329	3/8 (10)	Side Beam Attachment	3/4 through 4	EG
400	3/8 (10)	Clevis Hanger	2 1/2 through 4	PL, RO, FL
400	1/2 (12)	"	5, 6, 8	PL, RO, FL
401	3/8 (10)	Clevis Hanger	3/4, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3, 3 1/2, 4	EG
401	1/2 (12)	Clevis Hanger	5, 6, 8	EG
406	1/2 (12)	Clevis Hanger	2 1/2 through 4	S4, S6

406	5/8 (16)	"	5, 6, 8	S4, S6
420	3/8 (10)	Clevis Hanger	3/4, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3, 3 1/2, 4	EP
420	1/2 (12)	Clevis Hanger	5, 6, 8	EP
427	3/8 (10)	Clevis Hanger	3/4 through 2	-
427	1/2 (12)	"	2 1/2 and 3	-
427	5/8 (16)	"	4 and 5	-
427	3/4 (20)	"	6 and 8	-
Fig. 1	3/8 (10)	Swivel Pipe Loop	3/4 through 2	c
Fig. 1	3/8 (10)	"	2 1/2 through 4	c
Fig. 1	1/2 (12)	"	5 through 8	c
35	3/8 (10)	Standard C-Clamp	3/4 through 4	b, c
36	1/2 (12)	"	5 through 8	b, c
37	3/8 (10)	Wide Throat C-Clamp	3/4 through 4	c
37	1/2 (12)	"	5 through 8	c
58	3/8 (10)	Steel Side Beam Bracket	4	-
128BTS	3/8 (10)	Ceiling Plate	3/4 through 2	-
547	3/8 (10)	Steel Clamp	4	-
548	1/2 (12)	"	8	-
FCS	3/8 (10)	Loop Hanger	3/4 through 4	-
FCS	1/2 (12)	Loop Hanger	5, 6	-
FCS	5/8 (16)	Loop Hanger	8	-
EPB Plus	3/8 (10)	Loop Hanger	3/4 - 4	-
EPB Plus	1/2 (12)	Loop Hanger	5, 6	-

EPB Plus	58 (16)	Loop Hanger	8	-
112	38 (10)	Loop Hanger	3/4 through 4	-
112	12 (12)	Loop Hanger	5, 6 and 8	-
116	38 (10)	Loop Hanger	3/4 through 4	-
116	12 (12)	Loop Hanger	5, 6 and 8	-
112M/FCN	38 (10)	Loop Hanger	3/4 through 4	
112M/FCN	12 (12)	Loop Hanger	5, 6 and 8	
EPB	38 (10)	Loop Hanger	3/4 - 4 (21 mm - 89 mm)	-
EPB	12 (12)	Loop Hanger	5, 6 (114 mm - 139 mm)	-
EPB	58 (16)	Loop Hanger	8 (168 mm - 219 mm)	-
HDN	M10	Heavy Duty Pipe Clamp	3/4, 1, 1 1/4, 1 1/2, 2	-
HDN	M12/M10	Heavy Duty Pipe Clamp	2 1/2, 3, 4	-
HDN	M16/M12	Heavy Duty Pipe Clamp	5, 6	-
HDN-HD	M10	Heavy Duty Pipe Clamp	3/4, 1, 1 1/4, 1 1/2, 2	-
HDN-HD	M12/M10	Heavy Duty Pipe Clamp	2 1/2, 3, 4	-
HDN-HD	M16/M12	Heavy Duty Pipe Clamp	5, 6	-
MACROFIX PLUS NI 429	38 (10)	Clamp Hanger	3/4 - 2	-
SBC Beam Clamp	38 (10)	Beam Clamp	3/4 - 4	a, c
CRLB CADDY® ROD LOCK Beam Clamp	38 (10)	Beam Clamp	3/4 - 4	b, c
CRLB CADDY® ROD LOCK Beam Clamp	1/2 (12)	Beam Clamp	5 - 8	a, c
CADDY® ROD LOCK L-Bracket	38 (10)	Right Angle Bracket	3/4 - 4	-
MTVB	M10	Toggle	3/4, 1, 1 1/4, 1 1/2, 2	g
TBHK	38 (10)	Trapeze Hanger	3/4, 1, 1 1/4, 1 1/2, 2	g, h

Remarks:

a.) Approved in the bottom mount orientation only.

b.) FM Approved for use in the top and inverted bottom beam positions.

c.) These hanger components are also FM Approved when threaded for use with the nearest equivalent standard metric size hanger rod.

d.) Model 135 "Yook" Loop Hanger using two MCO 43-16 wood screw fasteners in each arm is FM Approved to support 3/4 through 4 in. NPS sprinkler system piping.

e.) Model 135CT "Yook" Loop Hanger using two MCO 43-16 wood screw fastener in each arm is FM Approved to support 3/4 through 2 in. NPS sprinkler system copper tubing.

f.) Model 137 "Yook" Loop Hanger using one MCO 43-16 wood screw fastener in each arm is FM Approved to support 3/4 through 2 in. NPS sprinkler system piping.

g.) These products are FM Approved when used with roof decking a minimum of 0.7 mm thick.

h.) The TBHK is also FM Approved as a TBHKM10 with a welded hex nut and a TBHKAM10 with an insert nut.

These hanger components are also FM Approved when threaded for use with the nearest equivalent standard metric size hanger rod. The suffix -M appears after the model number.

PL = Plain; **EG** = Electro-Galvanized; **HD** = Hot Dip Galvanized; **CG** = Zinc Chromate; **RO** = Red Oxide Paint; **EP** = Epoxy over Electric Galvanized; **FL** = Felt Lined; **S4** = Grade 304 Stainless Steel; **S6** - Grade 316 Stainless Steel

Company Name:	ERICO International Corporation
Company Address:	34600 Solon Rd, Solon, Ohio 44139, USA
Company Website:	http://www.erico.com
New/Updated Product Listing:	Yes
Listing Country:	United States of America
Certification Type:	FM Approved



Certificate of Compliance

This certificate is issued for the following:

<i>Product Designation</i>	<i>Hanger Rod Size, mm</i>	<i>Component Description</i>	<i>For Nominal Pipe Sizes, in.</i>
Caddy TKN M10 P1	10	Beam Clamp	3/4 through 4
†Caddy TKN10 P1	10	"	3/4 through 4
Caddy TKN-M12 P1	12	"	5 through 8
†Caddy TKN12 P1	12	"	5 through 8

†For European jurisdictions that prefer to use clearance holes for the threaded rod and hex jam nuts to secure the rods to the beam clamps.

Prepared for:

Erico, Inc.
34600 Solon Road
Solon, OH 44139

FM Approvals Class: 1951

Approval Identification: 3012257

Approval Granted: April 9, 2002

Said Approval is subject to satisfactory field performance, continuing follow-up Facilities and Procedures Audits, and strict conformity to the constructions as shown in the Approval Guide, an online resource of FM Approvals.

For more than 160 years FM Approvals has partnered with business and industry to reduce property losses.

A handwritten signature in dark ink, appearing to read "Richard B. Dunne".

Richard B. Dunne
Group Manager – Fire Protection
FM Approvals
1151 Boston-Providence Turnpike
Norwood, MA 02062





Certificate of Compliance

Pipe Hanger Components for Automatic Sprinkler Systems

This certificate is issued for the following equipment:

<i>Product Designation</i>	<i>Hanger Rod Size, in. (mm)</i>	<i>Component Description</i>	<i>For Nominal Pipe Sizes, in. (mm)</i>
TK16 M10	10	Beam Clamp	3/4 through 4
TK16 Ø 11	10	"	3/4 through 4
TK16 3/8"	3/8 in.	"	3/4 through 4
TK16 M12	12	"	3/4 through 8
TK16Ø 13	12	"	3/4 through 8
TK16 1/2"	1/2 in.	"	3/4 through 8
TK16 M16	16	"	3/4 through 8
TK16Ø 17	16	"	3/4 through 8
TK16 5/8"	5/8 in.	"	3/4 through 8

Approved for: Erico, BV
Jules Verneweg 75 NL – 5015 BG
Tilburg, Netherlands

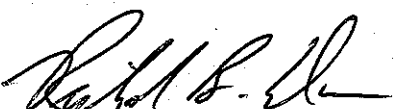
FM Approvals confirms that the items have been found to comply with the following standard:

FM Approvals Standard 1951

Project Identifier: 3023909 Date of Approval: September 15, 2005



Member of the FM Global Group


Richard B. Dunne, Manager, Hydraulics Group

August 3, 2009
Date



Certificate of Compliance

This certificate is issued for the following equipment:

Product Designation	Hanger Rod Size, in. (mm)	Component Description	For Nominal Pipe Sizes, in.
CRLA37EG	3/8	Threaded Head Screw for use in concrete	3/4 through 4
CRLAM10EG	M10	Threaded Head Screw for use in concrete	3/4 through 4
390010	M10	Threaded Head Screw for use in concrete	3/4 through 4

Approved For:

Erico International Corporation
34600 Solon Road
Solon, Ohio 44139

FM Approvals Standard 1951:

Pipe Hanger Components for Automatic Sprinkler Systems, dated Sept., 2003

Approval Identification: PI 3035985

Approval Granted: January 5, 2010

Said Approval is subject to satisfactory field performance, continuing follow-up Facilities and Procedures Audits, and strict conformity to the constructions as shown in the Approval Guide, an online resource of FM Approvals.

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business and industry to reduce property losses.*



Member of the FM Global Group


Richard B. Dunne
Manager Hydraulics Group
FM Approvals
1151 Boston-Providence Turnpike
Norwood, MA 02062

January 5, 2010

Fasteners

Anchors, expansion shields, concrete inserts, explosive-driven fasteners and threaded head screws provide anchorage to building structural members for supporting pipe hangers. See PIPE HANGER listing for other components and minimum rod sizes. Unless specifically noted in the listing, the following fasteners are FM Approved for vertical installation only.

Concrete Inserts

Concrete inserts provide anchorage to concrete building structures for supporting pipe hangers. Concrete inserts must be installed when the building is constructed.

Concrete Inserts

Product Designation	Hanger Rod Size, in. (mm)	Component Description	For Nominal Pipe Sizes, in.	Remarks
Model 355	3/8 (10)	Concrete Insert with Model 355N nut	¾ - 4	
Model 355	½ (12)	Concrete Insert with Model 355N nut	5 - 8	
Model 355	5/8 (16)	Concrete Insert with Model 355N nut	10, 12	
Model 355	¾ (19)	Concrete Insert with Model 355N nut	10, 12	
CRLW CADDY® ROD LOCK Plywood Pre-Set Anchor	3/8 (10)	Concrete Insert	¾ - 4	
CRLW CADDY® ROD LOCK Plywood Pre-Set Anchor	½ (12)	Concrete Insert	5 - 8	
CRLM CADDY® ROD LOCK Metal Decking Pre-Set Anchor	3/8 (10)	Concrete Insert	¾ - 4	
CRLM CADDY® ROD LOCK Metal Decking Pre-Set Anchor	½ (12)	Concrete Insert	5 - 8	

Company Name:	ERICO International Corporation
Company Address:	34600 Solon Rd, Solon, Ohio 44139, USA
Company Website:	http://www.erico.com
New/Updated Product Listing:	No
Listing Country:	United States of America
Certification Type:	FM Approved