Quality People. Building Solutions.

Comfort Systems USA (Arkansas), Inc.
P.O. Box 16620
Little Rock, AR 72231
Phone 501-834-3320
Fax 501-834-5416

Date: 2/4/2025
Return Request: 2/14/2025
Project: City Of Sherwood Public Works (Maintenance Building)
Supplier: Comfort Systems USA (Arkansas), Inc.
Manufacturer: Various
Submittal: Plumbing Piping
Submittal Number: 22 10 05-01
Drawing # and Installation: Plumbing Drawings

ARCHITECT
Cromwell
1300 East 6th Street
Little Rock, AR 72202
501-372-2900

ENGINEER
Cromwell
1300 East 6th Street
Little Rock, AR 72202
501-372-2900

GENERAL CONTRACTOR
Baldwin & Shell
1000 W. Capitol Ave.
Little Rock, AR 72201
501-374-8677

MECHANICAL SUBCONTRACTOR
Comfort Systems USA (Arkansas), Inc.
9924 Landers Rd.
N. Little Rock, AR 72117
501-834-3320

Notes:

CSUSA PROJECT NO.
24-6084
sean@comfortar.com

Pipe Valve & Fitting Schedule - City of Sherwood (Maintenance & Operations Bldg.)				
System	**Spec Section**	**Pipe**	**Fittings**	**Joint**
Sanitary Sewer - Below Grade	22 10 05, 2.02	Schedule 40 PVC DWV; ASTM D2655	PVC DWV; ASTM D2655/ASTM D3311	Solvent Weld (Glue & Primer); ASTM D2564
Sanitary Sewer - Above Grade	22 10 05, 2.03	Schedule 40 PVC DWV; ASTM D2655	PVC DWV; ASTM D2655/ASTM D3311	Solvent Weld (Glue & Primer); ASTM D2564
Domestic Water - Below Grade	22 10 05, 2.05	Type K Hard Copper; ASTM B42	Wrought Copper; ASME B.16.22	Silfos; AWS A5.8 BCuP
Domestic Water - Above Grade	22 10 05, 2.06	Type L Hard Copper; ASTM B88	Wrought Copper; ASME B.16.22	Lead-Free Solder; ASTM B32
Natural Gas - Below Grade	22 10 05, 2.08	Schedule 40 Steel; ASTM A53/A53M	Wrought Steel; ASTM A234/A234M	Welded
Natural Gas - Above Grade	22 10 05, 2.09	Schedule 40 Steel; ASTM A53/A53M	Wrought Steel; ASTM A234/A234M & Malle	Welded/Threaded
Condensate Drain - Below Grade	22 10 05, 2.10	Schedule 40 PVC DWV; ASTM D2655	PVC DWV; ASTM D2655/ASTM D3311	Solvent Weld (Glue & Primer); ASTM D2564
Condensate Drain - Above Grade	22 10 05, 2.11	Copper DWV; ASTM B306	Wrought Copper; ASME B16.29	Lead-Free Solder; ASTM B32

Lead-Free Bronze Ball Valves

Features: Silicon Performance Bronze® Alloy • Two-Piece Body • Full Port • Blowout-Proof Stem

Approvals: MSS-SP110/145 • IAPMO/ANSI Z1157 • ASME A112.4.14/CSA B125.14 • NSF/ANSI/CAN 61/372-8 Commercial Hot 180° F • ICC-ES PMG

IAPMO/ANSI Z1157
ASME A112.4.14
CSA B125.14

NSF/ANSI/CAN 61 & 372

Dezincification Resistant

5 year 125% warranty

Size range: ¼" - 3"
Pressure rating: 600 PSI non-shock cold working pressure
Maximum pressure / temperature: 100 PSI at 300° F

Lead-free markings: Double oval in body casting, white handle and blue hang tag

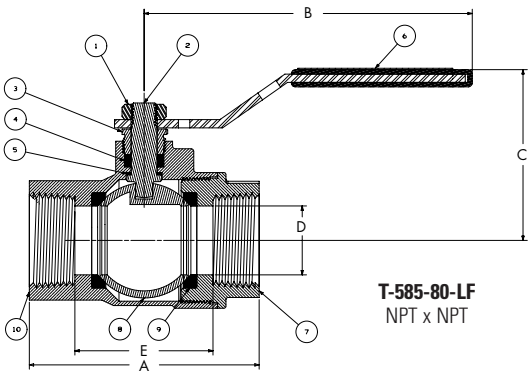
ICC ES Complies to UPC

MATERIAL LIST

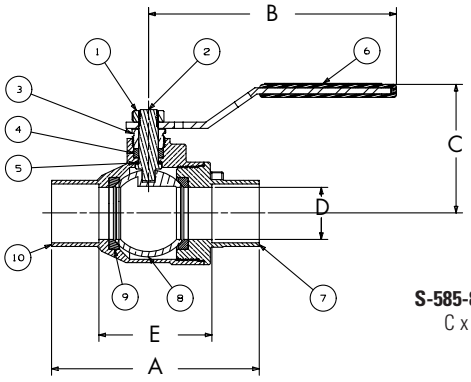
PART		SPECIFICATION
1.	Handle Nut	Zinc Plated Steel
2.	Stem	Silicon Bronze ASTM B371 Alloy C69300
3.	Pack Gland	Brass ASTM B16 Alloy C36000
4.	Packing, Stem	Virgin PTFE
5.	Washer, Thrust	Reinforced PTFE
6.	Handle	Zinc Plated Steel Clear Chromate Plastisol Coated
7.	End Piece	Silicon Bronze ASTM B584 Alloy C87600
8.	Seat Ring (2)	Reinforced PTFE
9.	Ball	DZR Brass SAE J461 C46500 (¼"-1") Stainless Steel ASTM A276 S31600 or ASTM A351CF8M (1¼"-3")
10.	Body	Silicon Bronze ASTM B584 Alloy C87600

T-585-80-LF
Threaded

S-585-80-LF
Solder



T-585-80-LF
NPT x NPT



S-585-80-LF
C x C

DIMENSIONS—WEIGHTS—QUANTITIES

		Dimensions																		
		T-585-80-LF	S-585-80-LF									T-585-80-LF	S-585-80-LF							
SIZE		A		A		B		C		D		E		E		T-585-80-LF		S-585-80-LF		Master Ctn. Qty.
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Lbs.	Kg.	
¼	8	1.78	45	1.83	46	3.96	101	1.86	47	0.31	8	1.00	25	1.21	31	0.43	0.19	0.40	0.18	24
⅜	10	1.79	45	1.97	50	3.96	101	1.85	47	0.38	10	1.80	46	1.21	31	0.44	0.20	0.41	0.19	24
½	15	2.23	57	2.4	61	3.96	101	1.96	50	0.5	13	1.16	29	1.40	36	0.65	0.30	0.56	0.25	80
¾	20	2.78	71	3.16	80	4.76	121	2.28	58	0.75	19	1.68	43	1.66	42	1.20	0.55	1.02	0.46	60
1	25	3.34	85	3.99	101	4.76	121	2.48	63	1	25	2.00	51	2.17	55	1.63	0.74	1.50	0.68	40
1¼	32	3.75	95	4.13	105	6.75	171	3.10	79	1.25	32	2.39	61	2.19	56	2.87	1.30	2.41	1.09	20
1½	40	4.26	108	4.97	126	6.75	171	3.32	84	1.5	38	2.89	73	2.79	71	3.83	1.74	3.62	1.64	10
2	50	4.80	122	6.02	153	6.75	171	3.56	90	2	51	3.40	86	3.34	85	5.57	2.53	5.54	2.51	6
2½	65	6.00	152	7.21	183	8.06	205	4.40	112	2.50	64	4.12	105	4.27	108	13.70	6.21	12.80	5.80	2
3	76	6.5	165	8	202	8.06	205	4.65	118	2.95	75	4.46	113	4.62	117	14.30	6.49	12.50	5.67	2

NEW

Handle Options:

- Stainless Steel Lever
- NIB-Seal®
- NIB-Seal® Locking Lever
- Locking Lever
- Stainless Steel Locking Lever
- Memory Stop
- Extended Lever w/ Memory Stop
- Round
- Wing
- Horizontal and Vertical Chain

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

LEAD-FREE: Weighted average lead content ≤ 0.25%

Lead-Free Bronze Check Valves

Features: Silicon Performance Bronze® Alloy • Horizontal Swing • Regrinding Type • Y-Pattern • Renewable Seat and Disc

Approvals: Conforms to MSS SP-139 • NSF/ANSI-61-8 Commercial Hot 180°F (includes annex F and G) and NSF/ANSI-372

NSF/ANSI 61
NSF/ANSI 372

Dezincification Resistant

5 year 125% warranty

Size Range: 1/4" - 2"
Pressure Rating: 200 PSI Non-Shock Cold Working Pressure
Maximum Pressure / Temperature: 100 PSI at 300° F

Lead-free marking: Double oval in body casting

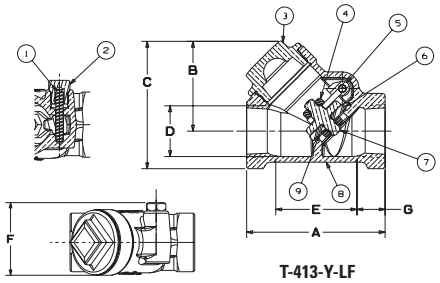
T-413-Y-LF
Threaded

S-413-Y-LF
Solder

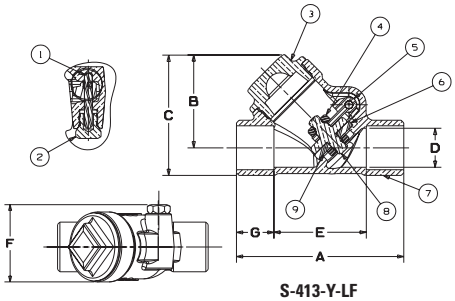
MATERIAL LIST

	PART	SPECIFICATION
1.	Hinge Pin	316SS or 304SS
2.	Hinge Pin Plug	Silicon Bronze ASTM B283 Alloy C69300
3.	Bonnet	Silicon Bronze ASTM B584 Alloy C87850
4.	Nut (2)	316SS or 304SS
5.	Disc Hanger	Silicon Bronze ASTM B584 Alloy C87850 or MPIF SS-316NI-25
6.	Seat Disc	PTFE
7.	Seat Disc Washer *	304SS or 316SS
8.	Disc Holder	Silicon Bronze ASTM B283 Alloy C69300
9.	Body	Silicon Bronze ASTM B584 Alloy C87850

***Sizes ¾", 1", 1¼", 1½" and 2" only.**



T-413-Y-LF
NPT x NPT



S-413-Y-LF
C x C

DIMENSIONS—WEIGHTS—QUANTITIES

SIZE		A		B		C		D		E		F		G		T-413-Y-LF		Master
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Ctn Qty.
1/4	8	2.12	53.85	1.31	33.27	1.37	34.79	0.67	17	1.57	40	1.401	27	0.26	7	0.508	0.23	50
3/8	10	2.12	53.85	1.31	33.27	1.31	33.27	0.67	17	1.40	36	1.401	27	0.35	9	0.478	0.22	50
1/2	15	2.44	62	1.66	42	2.31	59	0.81	21	1.61	41	1.401	33	0.42	11	0.55	0.25	50
3/4	20	2.9	74	1.88	48	2.67	68	1.04	26	2.06	52	1.702	40	0.42	11	0.90	0.41	50
1	25	3.56	90	2.27	58	3.29	84	1.26	32	2.44	62	1.953	52	0.55	14	1.46	0.66	30
1-1/4	32	4.18	106	2.73	69	3.93	100	1.59	40	3.00	76	2.179	60	0.59	15	2.17	0.99	20
1-1/2	40	4.48	114	3.08	78	4.44	113	1.86	47	3.39	86	2.430	70	0.57	13	2.95	1.34	10
2	50	5.29	134	3.84	98	5.48	139	2.29	58	3.74	95	3.067	83	0.76	19	4.79	2.17	10

SIZE		A		B		C		D		E		F		G		S-413-Y-LF		Master
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Ctn Qty.
1/4	8	2.12	53.85	1.31	33.27	1.37	34.79	0.67	17	1.57	40	1.401	27	0.26	7	0.508	0.23	50
3/8	10	2.12	53.85	1.31	33.27	1.31	33.27	0.67	17	1.40	36	1.401	27	0.35	9	0.478	0.22	50
1/2	15	2.52	64	1.540	42	1.940	49	0.54	14	1.52	39	1.416	20	0.50	13	0.55	0.25	50
3/4	20	3.34	85	1.861	48	2.410	61	0.78	20	1.84	47	1.717	28	0.75	19	0.88	0.40	50
1	25	4.06	103	2.206	29	2.880	73	1.02	26	2.25	57	1.947	34	0.91	23	1.48	0.67	30
1-1/4	32	4.69	119	2.737	38	3.520	89	1.26	32	2.75	70	2.178	40	0.97	25	2.22	1.01	20
1-1/2	40	5.28	134	3.030	44	3.950	100	1.51	38	3.09	78	2.429	47	1.09	28	3.00	1.36	10
2	50	6.44	164	3.640	98	4.863	123	1.98	50	3.74	95	3.073	62	1.34	34	4.87	2.21	10

NIBCO check valves may be installed in both horizontal and vertical lines with upward flow or in any intermediate position. They will operate satisfactorily in a declining plane (no more than 15°). Install check valves as far from pump discharge or line direction change as possible and at a minimum length of 5 times the pipe diameter.

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Do not use for reciprocating air compressor service.

LEAD-FREE: Weighted average lead content ≤ 0.25%

Lead-Free Bronze Gate Valves

Features: Silicon Performance Bronze® Alloy • Screw-In Bonnet • Non-Rising Stem

Approvals: Conforms to MSS SP-139 • Solid Wedge • NSF/ANSI-61-8
Commercial Hot 180°F (includes annex F and G) and NSF/ANSI-372

NSF/ANSI 61
NSF/ANSI 372

Dezincification Resistant

5 year 125% warranty

Size range: 1/4" - 3"
Pressure rating: 300 PSI non-shock cold working pressure
Maximum pressure / temperature: 100 PSI at 300° F

Lead-free markings: Double oval in body casting, white handle and blue hang tag

MATERIAL LIST

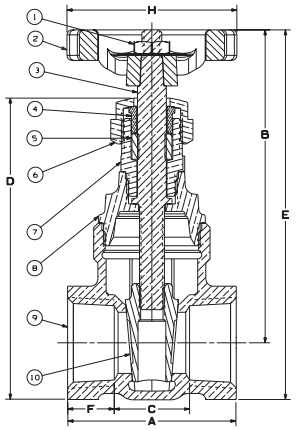
	PART	SPECIFICATION
1.	Handwheel Nut	300 Series Stainless Steel
2.	Identification Plate	Aluminum
3.	Handwheel	Malleable Iron ASTM A47 (T-113)
4.	Stem	ASTM B99 Alloy C65100
5.	Packing Nut	Bronze ASTM B62 or ASTM B584 Alloy C84400 or Brass ASTM B16
6.	Packing Gland	Bronze ASTM B62 or ASTM B584 Alloy C84400 or Brass ASTM B16
7.	Packing	Aramid Fibers with Graphite
8.	Stuffing Box	Silicon Bronze ASTM B584 Alloy C87850
9.	Bonnet	Silicon Bronze ASTM B584 Alloy C87850
10.	Body	Silicon Bronze ASTM B584 Alloy C87850
11.	Wedge	Silicon Bronze ASTM B584 Alloy C87850

T-113-LF
Threaded

S-113-LF
Solder

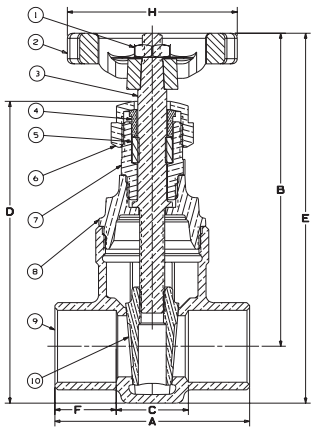
DIMENSIONS—WEIGHTS—QUANTITIES

SIZE		A		B		C		D		E		F		H		T-113-LF		Master
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Ctn Qty.
1/4†	8	1.68	43	3.44	87	0.88	22	3.06	78	3.95	100	0.4	10	1.95	50	0.70	0.31	50
3/8†	10	1.68	43	3.44	87	0.84	21	3.95	100	3.95	100	0.42	11	1.95	50	0.67	0.30	50
1/2†	15	1.94	49	3.66	93	0.88	22	4.24	108	4.24	108	0.54	14	1.95	50	0.78	0.35	50
3/4	20	2.06	52	3.94	100	0.92	23	4.64	118	4.64	118	0.57	14	1.95	50	1.00	0.48	50
1	25	2.44	62	4.62	117	1.04	26	5.52	140	5.52	140	0.7	18	2.56	65	1.73	0.78	30
1-1/4	32	2.62	67	5.19	132	1.21	31	6.25	159	6.25	159	0.7	18	2.56	65	2.28	1.04	20
1-1/2	40	2.88	73	6.3	160	1.38	35	7.5	191	7.5	191	0.75	19	3.55	90	3.33	1.51	10
2	50	3.06	78	7.09	180	1.48	38	8.59	218	8.59	218	0.79	20	3.55	90	4.68	2.13	10
2-1/2	65	4.12	105	8.88	226	1.84	47	10.69	272	10.69	272	1.14	29	3.55	90	9.46	4.29	5
3	80	4.5	114	10.24	260	2.1	53	12.5	318	12.5	318	1.2	30	4.23	107	13.70	6.20	4



T-113-LF
NPT x NPT

SIZE		A		B		C		D		E		F		H		S-113-LF		Master
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Ctn Qty.
1/2†	15	1.76	45	3.66	93	0.75	19	3.26	83	4.16	106	0.5	13	2.08	53	0.69	0.29	50
3/4	20	2.38	60	3.84	98	0.88	22	3.7	94	4.53	115	0.75	19	2.08	53	0.94	0.43	50
1	25	2.82	72	4.66	118	1	25	4.57	116	5.5	140	0.91	23	2.64	67	1.50	0.68	30
1-1/4	32	3.12	79	5.01	127	1.18	30	5.16	131	6.05	154	0.97	25	2.8	71	2.14	0.97	20
1-1/2	40	3.42	87	6.2	157	1.24	31	6	152	7.37	187	1.09	28	3.83	97	3.01	1.37	10
2	50	4	102	7.06	179	1.31	33	7.24	184	8.52	216	1.34	34	4.69	119	4.40	1.99	10



S-113-LF
C x C

†No packing gland, packing only in this size.

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

LEAD-FREE: Weighted average lead content ≤ 0.25%

NIBCO INC. WORLD HEADQUARTERS • 1516 MIDDLEBURY ST. • ELKHART, IN 46516-4740 • USA • PH: 1.800.234.0227
TECH SERVICES PH: 1.888.446.4226 • FAX: 1.888.336.4226 • INTERNATIONAL OFFICE PH: +1.574.295.3327 • FAX: +1.574.295.3455
www.nibco.com

Bronze Ball Valves

Dezincification Resistant

Two-Piece Body • Full Port • Bronze Trim • Blowout-Proof Stem

600 PSI/41.4 bar non-shock cold working pressure
150 PSI/10.3 bar saturated steam♦

CONFORMS TO MSS SP-110

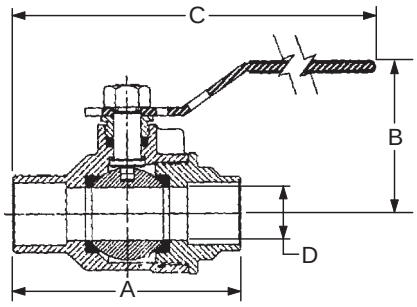
T-585-70
Threaded

S-585-70
Solder

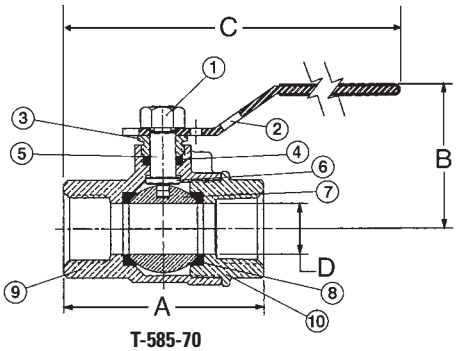
MATERIAL LIST

	PART	SPECIFICATION
1.	Handle Nut	Zinc Plated Steel
2.	Handle	Zinc Plated Steel Clear Chromate Plastisol Coated
3.	Threaded Pack Gland	Brass ASTM B 16 Alloy C36000
4.	Packing	PTFE
5.	Stem	Silicon Bronze ASTM B 371 Alloy C69300 or ASTM B 99 Alloy C65100
6.	Thrust Washer	Reinforced PTFE
7.	Ball	Brass ASTM B 124 Alloy C37700 or ASTM B16 Alloy C36000 EACH with Hard Chrome Plate
8.	Seat Ring (2)	Reinforced PTFE
9.	Body	Cast Red Bronze ASTM B 584 Alloy C84400
10.	Body End Piece	Cast Red Bronze ASTM B 584 Alloy C84400

¼" size only has a 304 stainless steel grounding washer.



S-585-70
C x C



T-585-70
NPT x NPT

DIMENSIONS—WEIGHTS—QUANTITIES

Size		Dimensions															
		T-585-70 A		S-585-70 A		B		T-585-70 C		S-585-70 C		D		T-585-70		S-585-70		Master
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Lbs.	Kg.	Ctn. Qty.
¼	8	2.00	51	1.75	44	1.75	44	5.00	127	4.75	121	.38	10	.45	.21	.42	.19	100
⅜	10	2.00	51	1.84	47	1.75	44	5.00	127	4.81	122	.38	10	.45	.21	.42	.19	100
½	15	2.44	62	2.56	65	1.88	48	5.19	132	5.25	133	.50	13	.64	.29	.60	.27	100
¾	20	2.94	75	3.25	82	2.25	57	6.25	159	6.25	159	.75	19	1.33	.60	1.27	.58	50
1	25	3.34	85	3.75	95	2.38	60	6.44	164	6.63	168	1.00	25	1.79	.81	1.72	.78	40
1 ¼	32	4.19	106	5.06	128	3.00	76	6.75	171	7.19	183	1.25	32	3.12	1.41	3.18	1.44	20
1 ½	40	4.72	120	5.99	151	3.16	80	9.06	230	9.69	246	1.50	38	4.78	2.17	5.12	2.32	10
2	50	5.16	131	6.72	170	3.50	89	9.25	235	10.06	256	2.00	51	6.68	3.03	7.10	3.22	8

Note: solder end is designed to be soft-soldered into lines using solders with the melting point not exceeding 500°F. Higher temperature solders will damage the seat material. See installation sheet packaged with valves.

♦For detailed operating pressure, refer to pressure temperature chart on page 41.

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

LEAD FREE* OPTION AVAILABLE

OXYGEN SERVICE OPTION AVAILABLE

*Weighted average lead content ≤ 0.25%

Visit our website for the most current information.

For Liquid and Steam Service

Job Name _____ Contractor _____

Job Location _____ Approval _____

Engineer _____ Contractor's P.O. No. _____

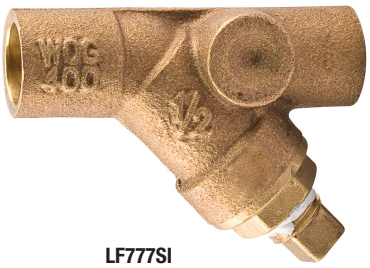
Approval _____ Representative _____

LEAD FREE*

Series LF777SI, LFS777SI

Wye-Pattern, Lead Free Cast Strainers
NSF Certified to NSF 61 Annex G

Sizes: ⅜" – 3" (10-75mm)



LF777SI

Series LF777SI, LFS777SI Wye-Pattern, Lead Free* cast strainers are designed to protect plumbing system components from dirt, rust and other damaging debris. The Series LF777SI and LFS777SI feature Lead Free* construction to comply with Lead Free* installation requirements.

Features

- NSF 61 Annex G certified
- Lead Free* cast copper silicon alloy body and cap
- Wye-pattern
- Tapped retainer cap
- Closure plug
- Special flared screen opening on upstream end to provide unrestricted flow through the strainer

Models

LF777SI – ⅜" – 3" (10 – 80mm) threaded connections

LFS777SI –½" – 2" (15 – 50mm) solder connections†

Specifications

A wye-pattern, Lead Free* cast strainer to be installed as indicated on the plans. The strainer must have a tapped retainer cap and closure plug. Strainer shall be rated to 400psi (27.6 bar) WOG; 125psi (8.6 bar) WSP for sizes ⅜"-2" (10-50mm) and 300psi (20.7 bar) @ 210ºF (99ºC); 125psi (8.6 bar) WSP @ 353ºF (178ºC) for sizes 2½"-3" (65-80mm). The strainer shall be constructed using Lead Free* cast copper silicon alloy. Lead Free* strainers shall comply with state codes and standards, where applicable, requiring reduced lead content. Strainer shall be a Watts Series LF777SI (threaded ends) or LFS777SI (solder ends).

Materials

Body:	Lead Free* cast copper silicon alloy
Retainer Cap:	Lead Free* cast copper silicon alloy
Plug	Lead Free* brass
Gasket:	NBR
Standard Screen:	#20 mesh, 304 stainless steel

Pressure – Temperature

Maximum Working Pressure:

⅜"–2" (10-50mm)

400psi (27.6 bar) WOG @ 210ºF (99ºC)

125psi (8.6 bar) WSP @ 353ºF (178ºC)

2½"–3" (65-80mm)

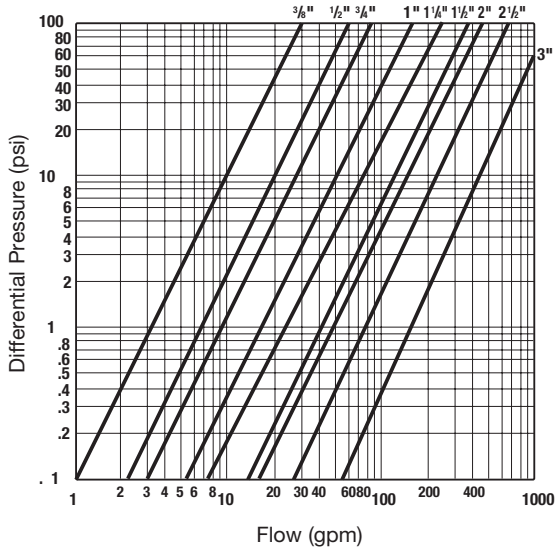
300psi (20.7 bar) WOG @ 210ºF (99ºC)

125psi (8.6 bar) WSP @ 353ºF (178ºC)

***The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.**

WATTS®

Performance Data

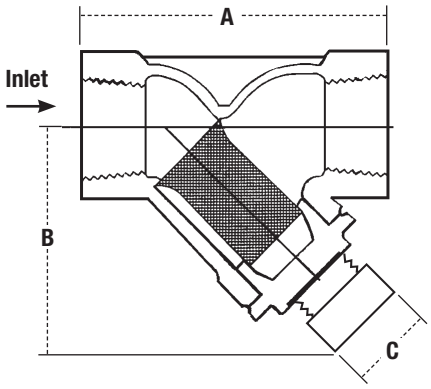


Flow curves show flows (gpm) and pressure drop (psig) through Watts Series 777SI, S777SI using standard 20 mesh screen.

Dimensions — Weights

LF777SI

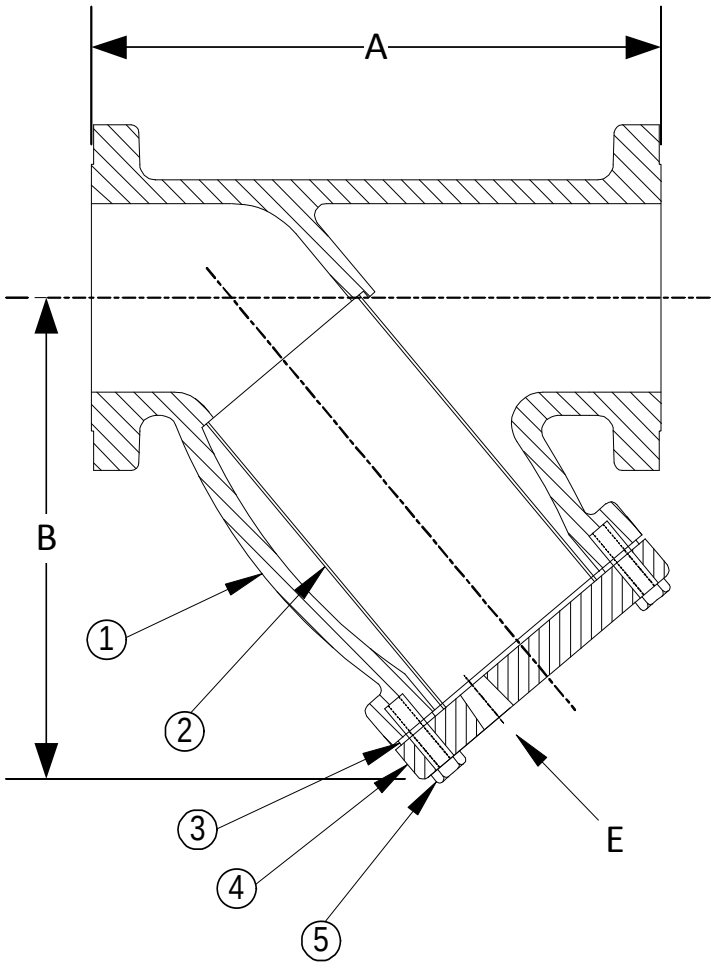
SIZE (DN)		DIMENSIONS						WEIGHT	
		A		B		C			
in.	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lbs.*	*kgs.*
3/8	10	2 3/8	60	1 5/16	33	1/4	6	0.4	0.18
1/2	15	2 3/4	70	1 3/8	35	1/4	6	0.5	0.23
3/4	20	3 3/16	81	1 5/8	42	1/4	6	0.6	0.27
1	25	3 3/4	95	2 1/8	54	1/2	13	1.1	0.50
1 1/4	32	4 7/16	113	2 1/2	64	1/2	13	1.9	0.86
1 1/2	40	4 7/8	124	3	76	3/4	19	2.4	1.09
2	50	5 15/16	151	3 9/16	91	1	25	4.4	2.00
2 1/2	65	9 1/16	230	5 7/8	149	1/2	13	9.8	4.44
3	80	10 3/16	259	6 1/4	159	1/2	13	13.2	5.99



LFS777SI

SIZE (DN)		DIMENSIONS						WEIGHT	
		A		B		C			
in.	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lbs.*	*kgs.*
1/2	15	2 3/4	70	1 3/8	35	1/4	6	0.4	0.18
3/4	20	3 3/8	86	1 5/8	42	1/4	6	0.6	0.27
1	25	3 3/4	95	2 1/8	54	1/2	13	0.9	0.41
1 1/4	32	4 9/16	116	2 1/2	64	1/2	13	1.5	0.68
1 1/2	40	5 5/16	135	3	76	3/4	19	1.9	0.86
2	50	6 1/8	156	3 9/16	91	1	25	3.3	1.50

DRAWING NO.
AL 731745



BODY PRESSURE & TEMPERATURE RATINGS – NON SHOCK			
NOM. RATING	MEDIA	2" to 12"	14" and UP
250# R.F.& D. (EX. HEAVY FLANGE)	STEAM	250 PSI @ 450°F	200 PSI @ 406°F
	W.O.G.	500 PSI @ 150°F	300 PSI @ 150°F

PARTS LIST		
ITEM	DESCRIPTION	MATERIAL
1	BODY	CAST IRON (ASTM A 126, CLASS B)
2	SCREEN	STAINLESS STEEL (304)
3	GASKET	COMPOSITION
4	COVER	CAST IRON (ASTM A 126, CLASS B)
5	HEX HEAD CAP SCREWS	STEEL

Optional: Blow-off Plug, Malleable Iron

Product Number†	SIZE	DIMENSIONS (in)			COVER		WEIGHT (lbs)
		A	B	E	No. of Bolts	Size of Bolts	
23RFY-CI062P34-FB	2	9-7/8	6-1/4	1/2	4	5/8-11 x 1-1/2	33
21/23RFY-CI-062P34-FB	2-1/2	11-1/4	7-3/4	1	4	5/8-11 x 1-1/2	49
33RFY-CI06234-FB	3	12-1/2	8-1/4	1	4	5/8-11 x 1-1/2	57
43RFY-CI062P34-FB	4	14-5/8	10-1/8	1-1/4	8	5/8-11 x 1-3/4	106
53RFY-CI125P34-FB	5	18	12-1/2	1-1/4	8	3/4-10 x 2	157
63RFY-CI125P34-FB	6	20-3/8	14-3/8	1-1/2	8	3/4-10 x 2	215
83RFY-CI125P34-FB	8	23-7/8	17-1/2	1-1/2	8	3/4-10 x 2-1/4	315
103RFY-CI125P34-FB	10	29-5/8	21	2	12	7/8-9 x 2-1/4	525
123RFY-CI125P34-FB	12	33-3/4	23-5/8	2	12	7/8-9 x 2-1/2	700
143RFY-CI125P34-FB	14	38	27-1/8	2	-	-	1400
163RFY-CI125P34-FB	16	42-3/8	29-1/4	2	-	-	1850

†See *"Style A Product Number Configuration"* for additional options.

STANDARD SCREENS SUPPLIED

SIZE	SCREEN GAGE	SCREEN PERFORATION			
		FOR STEAM	OPEN AREA	FOR LIQUID	OPEN AREA
in		in		in	
2 to 4	28	3/64	33%	1/16	30%
5 to 10	24	3/64	33%	1/8	43%
12	24	1/16	30%	1/8	43%
14 & UP	20	1/8	43%	1/8	43%

Standard screens supplied are for **liquid service**, unless otherwise specified.
Options: Other perforations, meshes, and screen materials are available.

KECKLEY

3400 CLEVELAND SKOKIE ILLINOIS

DRAWING NO.
AL 731745

DIMENSIONAL ASSEMBLY

PART NO.

2" to 16" 250# Flg Style A

SCALE: NTS

DATE: 12/28/2016

MAT'L: Cast Iron

REQ. ---

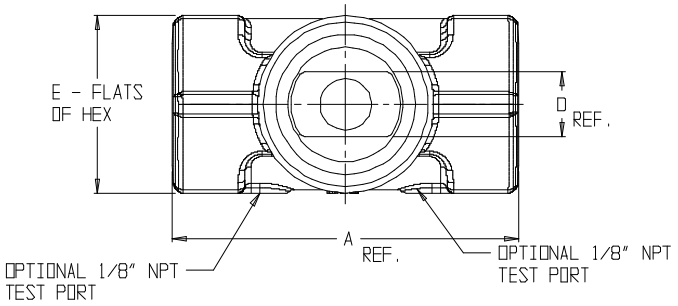
DR. BY DSF

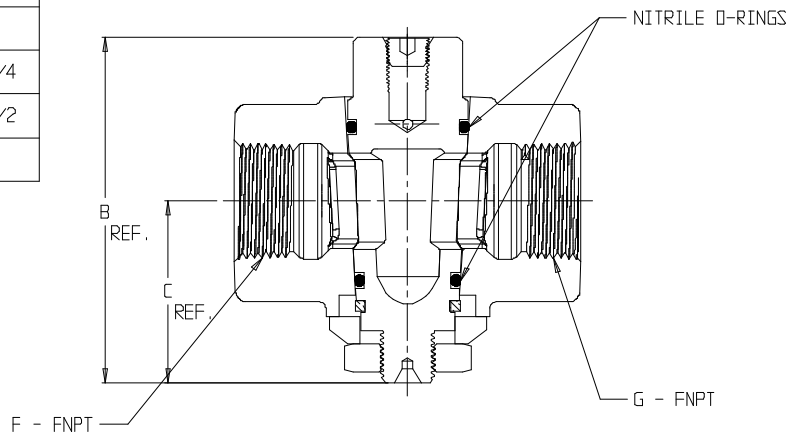
SUBMITTAL DATA SHEET

Iron Body Gas Plug Valves less Lockwing –559 Series

FNPT x FNPT

SIZE	A	B	C	D	E	F	G
1/2	3.14	3.16	1.66	.59	1.62	1/2	1/2
3/4	3.14	3.16	1.66	.59	1.62	3/4	3/4
1	3.36	3.53	1.86	.59	1.94	1	1
1 1/4	3.88	4.38	2.38	.65	2.31	1 1/4	1 1/4
1 1/2	4.66	4.99	2.66	.62	2.62	1 1/2	1 1/2
2	5.60	5.57	2.96	.59	3.00	2	2





SUBMITTAL INFORMATION

- Manufactured in compliance with ANSI/ASME B16.33 (latest revision)
- Brass castings conform to ASTM B584, UNS C83600 or C84400 (latest revision)
- Iron castings conform to ASTM A126 Class B Iron
- Optional Armorgalv ® coating per ASTM A1059 (latest revision)
- Rated for 175 PSIG natural, manufactured, or LP gas pressure
- Valve can be re-lubricated while in service and under pressure
- Plug rotates 360°
- Tamper-resistant design prevents disassembly with normal household tools
- Port opening sized to accommodate the best-known stop changers

A.Y. McDonald Mfg. Co.
4800 Chavenelle Rd
Dubuque, IA 52002

Toll Free: 1-800-292-2737
sales@aymcdonald.com
aymcdonald.com

Submitted by:

Drop-in Anchors
Fig. 05-470

Specifications

Materials:
Zinc Plated Steel

Part Numbers:

05-470-00	3/8"
05-471-00	1/2"
05-472-00	3/8", mini

Use With:

05-475-00 Setting Tool	3/8"
05-474-00 Setting Tool	1/2"
05-476-00 Setting Tool	3/8", mini

Description

FPPI Drop-In Anchors and Mini Drop-In Anchors are UL listed in accordance with NFPA requirements. Zinc plating provides corrosion resistance. Follow NFPA requirements and installation instructions for proper use.

Installation

STEP 1: Using a masonry bit suitable for the material being drilled, drill an appropriate diameter hole at the correct depth according to the table below.

Anchor Size	Drill Size	Minimum Hole Depth
3/8" Standard	1/2"	1 9/16"
1/2" Standard	5/8"	2"
3/8" Mini	1/2"	3/4"

STEP 2: Insert the anchor into the hole until the edge of the anchor is flush* with the surface of the material the anchor is being installed in. *The Anchor may be installed at a greater depth by drilling the hole to the desired depth and threading the correct size bolt for the size anchor being installed and tapping the anchor into the drilled hole.

STEP 3: After inserting the anchor to the desired depth, insert the correct size setting tool into the anchor and drive the plug into the anchor until the shoulder of the setting tool meets the edge of the anchor. The anchor is now installed and ready to be used.

Note: It is recommended that when used in cinder block, that the anchor be placed between the cells.

Average Pullout Values For 4000psi Concrete

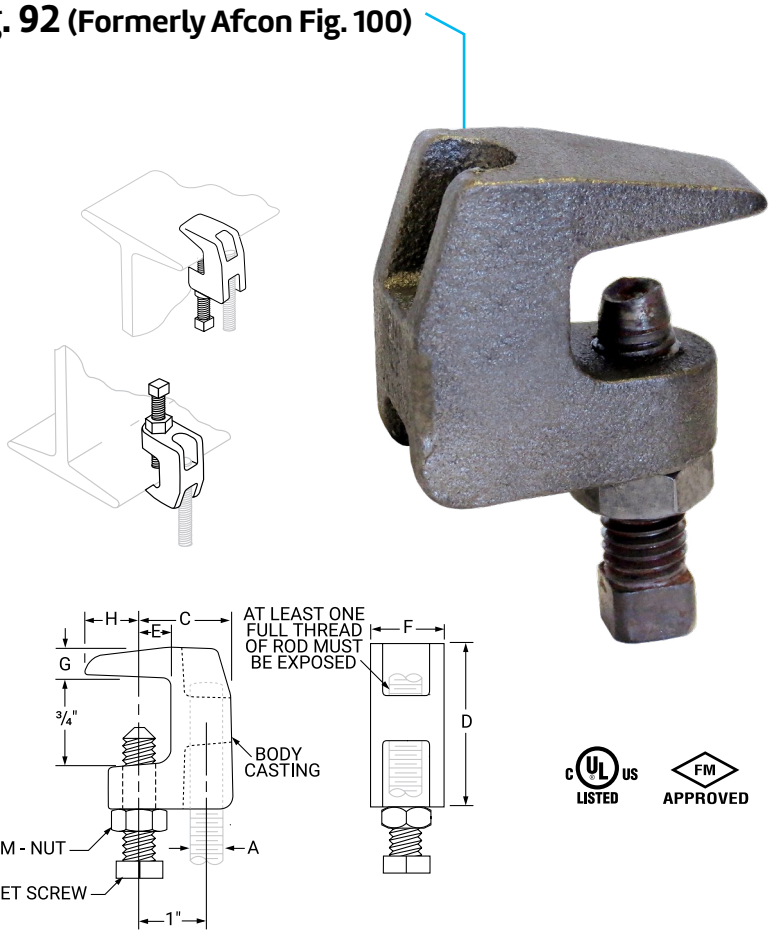
Part Number	Bolt Size	Pullout Value
Standard Drop-In		
05-470-00	3/8"	5,530 lbs
05-471-00	1/2"	8,080 lbs
Mini Drop-In		
05-472-00	3/8"	1,980 lbs

FPPI
An ASC Engineered Solution

PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

Universal C-type Clamp (Standard Throat)

Fig. 92 (Formerly Afcon Fig. 100)



c UL us LISTED

FM APPROVED

Material Specifications

Size Range
3/8" and 1/2"

Material
Ductile iron, hardened steel cup point set screw and locknut.

Finish
☐ Plain
☐ Zinc Plated (Hot-Dip Galvanized optional)

Service
Recommended for use under roof installations with bar joist type construction, or for attachment to the top or bottom flange of structural shapes where the vertical hanger rod is required to be offset from the edge of the flange and where the thickness of joist or flange does not exceed 3/4".

Approvals
Complies with Federal Specification A-A-1192A (Type 19 & 23), WW-H-171-E (Type 23), ANSI/MSS SP-69 and MSS SP-58 (Type 19 & 23).
UL, ULC Listed and FM Approved.

How to size
Size of clamp is determined by size of rod to be used.

Installation
Follow recommended set screw torque values per MSS-SP-69.

Features
- They may be attached to horizontal flanges of structural members in either the top beam or bottom beam positions.
- Secured in place by a cup-pointed Set Screw tightened against the flange. A Jam Nut is provided for tightening the Set Screw against the Body Casting.
- Thru tapping of the body casting permits extended adjustment of the threaded rod.
- Can be used with Fig 89X retaining clip for seismic applications.

Ordering
Specify rod size, figure number, name of clamp and finish.

Available with oversized tapped rod hole for Hot Dip Galvanized finish.

Dimensions (In) - Load (Lbs) - Torque (In-Lbs) - Weight (Lbs)

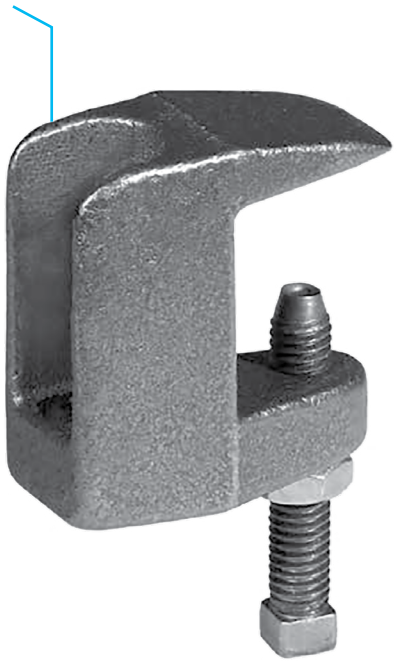
Rod Size A	Set Screw Size	Torque Value	Max Loads ■ Top	Max Loads ■ Bottom	Weight	C	D	E	F	G	H
In.	In.	In.-Lbs.	Lbs.	Lbs.	Lbs.	In.	In.	In.	In.	In.	In.
3/8	3/8	60	500	250	0.34	1 5/16	1 9/16	9/16	13/16	3/8	1/2
1/2	1/2	125	950	760	0.63	1 3/8	1 13/16	1/2	1 1/16	7/16	23/32

Note:
■ Maximum temperature of 450° F

ANVIL
An ASC Engineered Solution

PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

Wide Throat Top Beam C-Clamp
Fig. 94



UL US LISTED

Features:

- Provides clamping to bar joists which are directly under roof installations.
- Provides for vertical hanger rod installed offset from the edge of the beam flange.
- Ductile iron body assures full thread engagement of rod.

Material Specifications

Size Range
5/8" and 3/4"

Material
Ductile iron body, hardened steel cup point set screw and locknut.

Finish
☐ Plain or
☐ Zinc Plated (Hot-Dip Galvanized optional)

Service
Recommended for use under roof installations with bar joist type construction, or for attachment to the top flange of structural shapes where the vertical hanger rod is required to be offset from the edge of the flange and where the thickness of joists or flange does not exceed 1 5/16".

Approvals
Complies with Federal Specification A-A-1192A (Type 19)

WW-H-171-E (Type 19), ANSI/MSS SP-69 and MSS SP-58 (Type 19), UL Listed.

How to size
Size of clamp is determined by size of rod to be used.

Installation
Follow maximum recommended set screw torque values per MSS-SP-69.

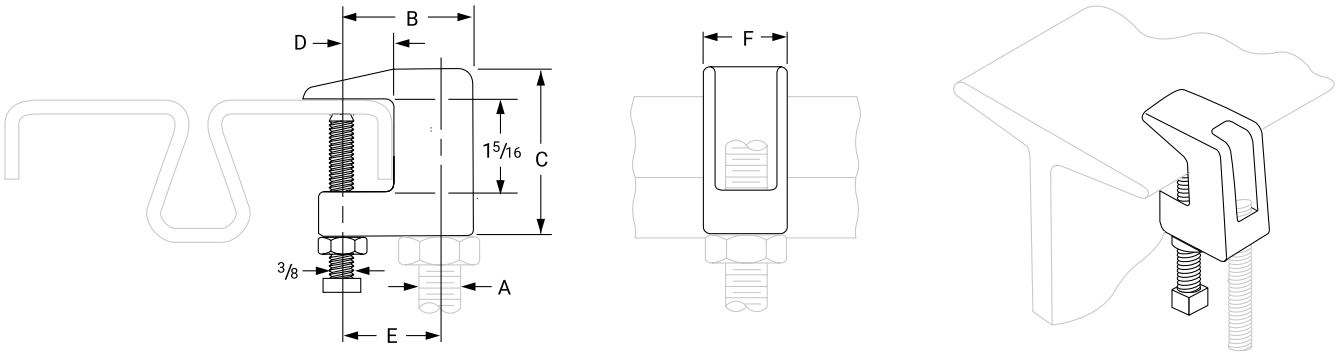
Ordering
Specify rod size, figure number, name of clamp and finish.

Available with oversized tapped rod hole for Hot Dip Galvanized finish.

ANVIL
An ASC Engineered Solution

PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

Wide Throat Top Beam C-Clamp
Fig. 94



Dimensions (In) • Load (Lbs) • Torque (In-Lbs) • Weight (Lbs)

Rod Size A	Set Screw Size	Torque Value	Max Loads*	Weight	B	C	D	E	F
5/8	3/8	60	1,200	0.66	1 3/4	2 1/4	3/4	1 1/4	1
3/4	3/8	60	1,600	0.83	1 7/8	2 3/8		1 3/8	1 3/16

Note:

* Maximum temperature of 450° F

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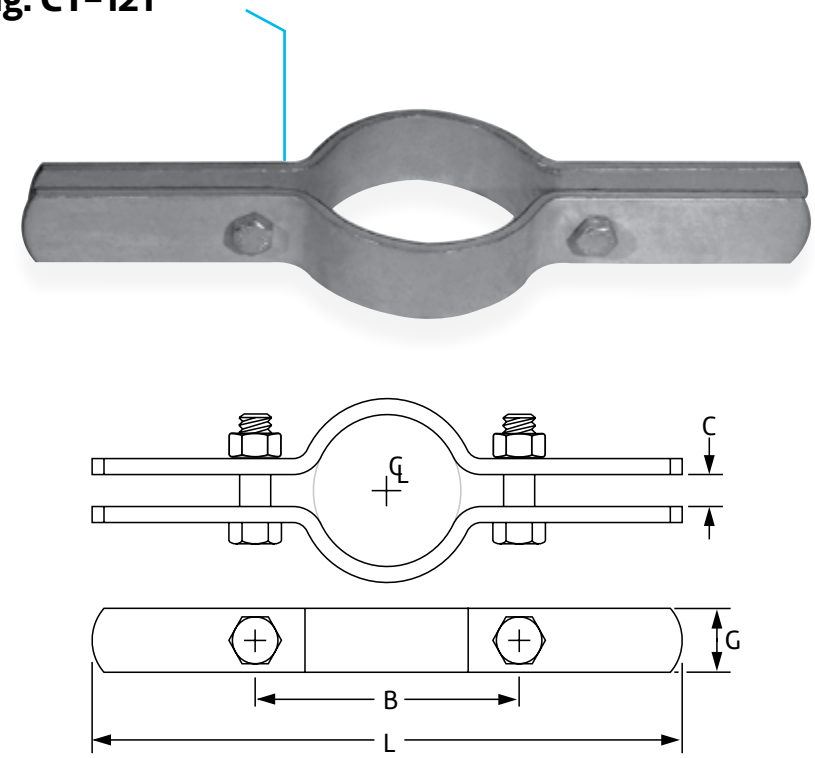
Building connections that last™

ASC Engineered Solutions

Copper Tubing Riser Clamp
Fig. CT–121



Size Range: ½" through 4"

Material: Carbon steel

Finish: Copper plated

Service: Recommended for support and steadying of copper tube risers, either insulated or non–insulated. This product is not intended for use with hanger rods.

Approvals: Complies with Federal Specification A–A–1192A (Type 8), WW–H–171–E (Type 8), ANSI/MSS SP–69 and MSS SP–58 (Type 8).

Service: For support and steadying of copper tubing risers.

Installation: Clamp is fitted and bolted preferably below a coupling or fitting on the tubing. Do not over tighten bolts.

Features: Rounded ears provide greater safety for personnel.

Ordering: Specify tube size, figure number, and name.

ANVIL
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Fig. CT–121: Dimensions (in) • **Loads** (lbs) • **Torque** (ft–lbs) • **Weight** (lbs)

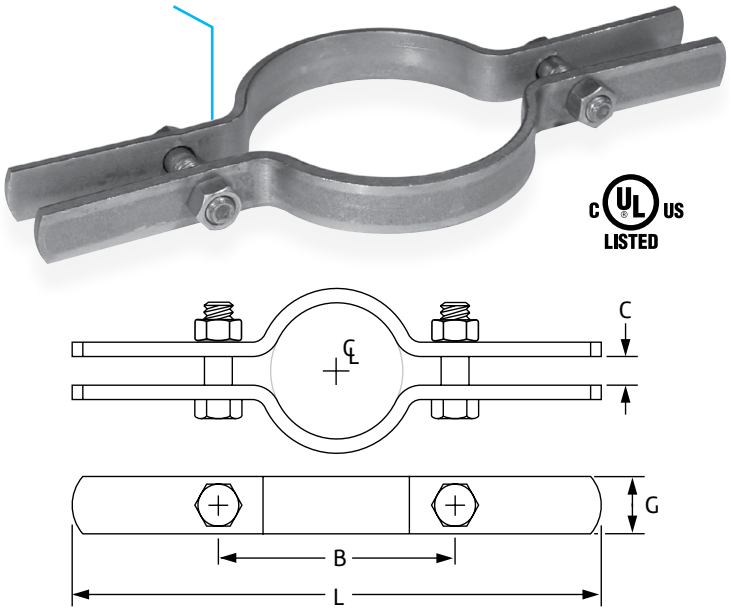
Tube Size	Max Load	Weight	L	G Width	B	C	Bolt Size	Torque Values
½	75	0.52	6½	1	2⅞	⅜	5/16	11
¾		0.56	7					
1	120	0.94	9⅜	1¼	3⅛		⅜	21
1¼	150	0.98	9⅝		3½			
1½		1.50	10		3⅞			
2		1.50	10⅜		4¼	½		
2½	300	1.70	11 13/16		4¾			
3		1.80	11½		5½			
3½		1.90	12		6½			
4		2.60	13	1	7		½	46

Note: Minimum loads per MSS SP only applicable to 1¼" and up.

PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

ASC Engineered Solutions

Extension Pipe or Riser Clamp
Fig. 261 (Formerly Afcon Fig. 400)



Size Range: ¾" through 24"

Material: Carbon steel

Finish: ☐ Plain, ☐ Hot-Dip Galvanized with Zinc Plated Bolts & Nuts, ☐ Epoxy Coated or ☐ Painted.

Service: For support of stationary steel pipe risers, cast iron pipe or conduit. This product is not intended for use with hanger rods. For this application refer to Fig. 40 Riser Clamp.

Maximum Temperature: Plain 650° F, Galvanized and Epoxy 450° F

Approvals: Complies with Federal Specification A-A-1192A (Type 8) WW-H-171-E (Type 8), ANSI/MSS SP-69 and MSS SP-58 (Type 8). UL, ULC Listed (Sizes 1½" - 8").

Installation: Clamp is fitted and bolted preferably below a coupling, hub or welded lugs on steel pipe. Bolt torques should be per industry standards (see page 248). Clamp is designed for standard steel pipe O.D. and this must be considered in sizing the riser for other types of piping.

Ordering: Specify pipe size, figure number, name and finish.

Note: Refer to Technical Data Section of the Pipe Hanger Catalog for cast iron soil pipe data.

Fig. 261: Dimensions (in) • **Loads** (lbs) • **Torque** (ft-lbs) • **Weight** (lbs)

Pipe Size	Max Load	Weight	L	G Width	B	C	Bolt Diameter	Torque Values
½ & ¾	220	1.1	8⅞	1	2⅞	⅜	⅜	21
1		1.1			3⅛			
1¼	250	1.6	10		3½			
1½		1.6	10¼		3⅞			
2	300	1.7			4¼	½	7/16	32
2½	400	1.9	11¼		4¾			
3	500	1.9	11⅜		5½			
3½	600	2.3	12⅞		6½	½	½	46
4	750	2.4			7			
5	1,500	3.6	13¾	1½	8			
6	1,600	4.0	14¾		9			
8	2,500	7.6	18½		12	⅝	⅝	100
10		11.1	20¼	2	13¾			
12	2,700	16.5	22¾		15¾			
14		17.7	24		17¼			
16	2,900	30.4	26	2½	19¾	¾	¾	150
18		33.8	28		21¾			
20		35.0	30		23¾			
24	3,200	82.0	36¾	3	30	1	⅞	190

PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

ASC Engineered Solutions

Adjustable Clevis Hanger
Fig. 260 (Formerly Afcon Fig. 371)

Size Range: ½" through 30"

Material: Carbon Steel

Finish: ☐ Plain, ☐ 8" & Smaller: Zinc Plated (Hot-Dip Galvanized optional), ☐ 10" & Larger: Hot-Dip Galvanized with Zinc Plated Bolts & Nuts, or ☐ Primed, also available in ☐ Plastic or ☐ Epoxy Coated.

Service: Recommended for the suspension of stationary pipe lines.

Maximum Temperature: Plain 650° F, Galvanized and Epoxy 450° F

Approvals: Complies with Federal Specification A-A-1192A (Type 1), WW-H-171-E (Type 1), ANSI/MSS SP-69 and MSS SP-58 (Type 1). FM Approved (Sizes ¾" through 8"), UL and ULC Listed (Sizes ½" through 8").

Installation: Hanger load nut above clevis must be tightened securely to assure proper hanger performance.

Adjustment: Vertical adjustment without removing pipe may be made from ⅜" through 5⅛", varying with the size of clevis. Tighten upper nut after adjustment.

Features:

- Design has yoke on outside of lower U-strap so yoke cannot slide toward center of bolt, thus bending of bolt is minimized.
- Sizes 5" and up have rod and two nuts instead of bolt and nut; thread length on clevis rod is such that the thread locks the nuts in place, and threads are not in shear plane.

Ordering:

Specify pipe size, figure number, name and finish.

Notes:

- Punched forming holes may be present on certain sizes of this clevis hanger. These holes are solely for the purpose of manufacturing, and do not effect the structural integrity or load carrying capacities of these hangers.
- For insulated line options without shields, see Figures 260 ISS and Figure 300. For insulated line options with shields, see Figures 167 and 168. For ductile iron pipe sizes, see Figure 590.
- Fig. 260F (Felt lined) – available for use for suspension of copper (or other material) so as to prevent electrolysis between the dissimilar metals of the hanger and the pipe, tube or conduit.

Caution:

When an oversize clevis is used, a pipe spacer or multispacer should be placed over clevis bolt to ensure that the lower U-strap will not move in on the bolt.

ANVIL
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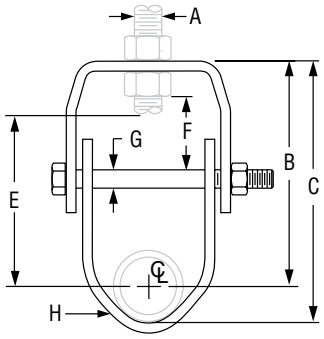
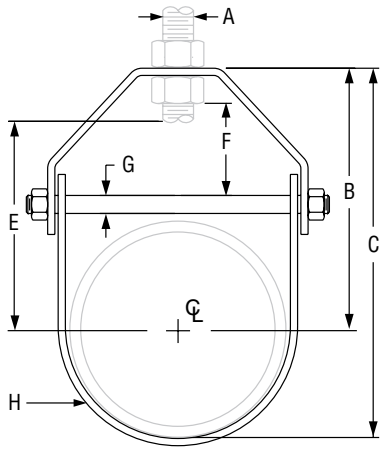
PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

ASC Engineered Solutions

Adjustable Clevis Hanger (Cont.)
Fig. 260 (Formerly Afcon Fig. 371)



Pipe Size ½" to ¾"



Pipe Sizes 1" and Larger

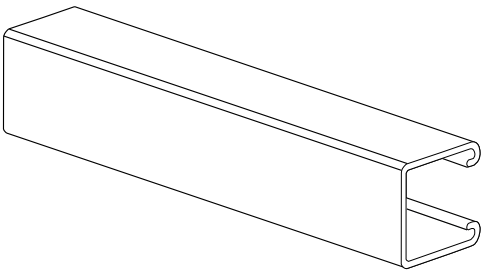
Fig. 260: Dimensions (in) • **Loads** (lbs) • **Weight** (lbs)

Pipe Size	Max Load	Span Ft.	Weight	Rod Size A	B	C	Rod Take Out E	Adjust. F	G	H Width Lower
½	610	7*	0.34	⅜	2 3/16	2 11/16	1½	⅝	¼	1
¾			0.34		2		1 5/16			
1	730		0.35		2 5/16	3	1 5/8			
1¼			0.40		2 3/8	3¼	1 11/16			
1½		9*	0.45		2 13/16	3 13/16	2⅛	⅞		
2		10*	0.50		3 5/16	4½	2 5/8	1⅛		
2½	1,350	11*	0.65	½	4 1/16	5½	3 3/16	1 5/16	⅜	
3		12*	0.85		4¾	6½	4 1/16	1⅝		1¼
3½		13*	1.10		5 1/16	7 1/16	4 3/16	1 13/16		
4	1,430	14*	1.51	⅝	5 9/16	7 13/16	4½	1 11/16	⅜	
5		16*	1.70		6 9/16	8 15/16	5½	1 15/16		1 3/16
6	1,940	17*	3.10	¾	6 15/16	10¼	5¾	1 11/16	½	1 7/16
8	2,000	19*	4.75		8⅜	12 11/16	7 3/16	2		
10	3,600	22*	8.60	⅞	9⅞	15¼	8 7/16	2⅛	⅝	1¾
12	3,800	23*	11.20		11 9/16	17 15/16	10⅛	2 13/16		2
14	4,200	25*	12.50	1	12 9/16	19 9/16	10 11/16	2 11/16	¾	
16	4,600	27	19.85		14	22	12	2¾	1	2½
18	4,800	28	22.25		15 15/16	24 15/16	13 15/16	3 13/16		
20	4,800	30	40.33	1¼	17 9/16	27 9/16	15 3/16	3⅞	1¼	3
24**	4,800	32	49.83		19 13/16	31 13/16	17 5/16		⅞*	
30***	6,000	33	70.18		24 3/16	39 3/16	21 9/16	5⅛	1¼	

"Span" represents the maximum recommended distance between hangers on a continuous and straight run of horizontal standard weight steel pipe filled with water.
In all cases, verify that chosen location of hangers does not subject hangers to a load greater than the maximum recommended load shown above.
*Indicates that span represents the maximum span for water filled pipe.
**The 24" pipe size assembly includes a 1¼" SCH 40 pipe spacer over the ⅞" threaded rod.
***The 30" pipe size assembly includes a 1¼" SCH 40 pipe spacer over the 1¼" threaded rod. When assembled, the U-strap sits outside of the yoke.

ANVIL An ASC Engineered Solution

Channel
Fig. AS 200

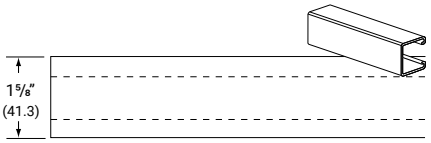


Description

Anvil-Strut channels are manufactured by a series of forming dies, or rolls, which progressively cold work the strip steel into the desired channel configuration. This method produces a cross section of uniform dimensions within a tolerance of plus or minus 0.015", on outside dimensions.

Solid ☐ AS 200

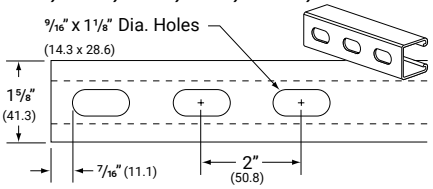
☐ PL, ☐ GR, ☐ PG, ☐ SS, ☐ ZTC, ☑ HG



Wt/100 Ft: 194 Lbs

With Elongated Holes ☑ AS 200EH

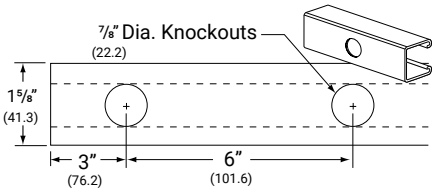
☐ PL, ☑ GR, ☐ PG, ☐ SS, ☐ ZTC, ☐ HG



Wt/100 Ft: 189 Lbs

With Knock Out ☐ AS 200KO

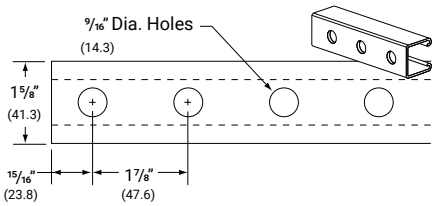
☐ PL, ☐ GR, ☐ PG, ☐ Other



Wt/100 Ft: 194 Lbs

With Holes ☐ AS 200H

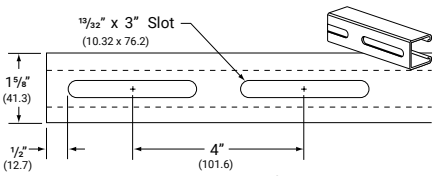
☐ PL, ☐ GR, ☐ PG, ☐ Other



Wt/100 Ft: 189 Lbs

With Long Slots ☐ AS 200S

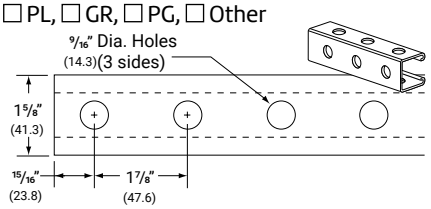
☐ PL, ☐ GR, ☐ PG, ☐ Other



Wt/100 Ft: 179 Lbs

With Holes on 3 Sides ☐ AS 200H3

☐ PL, ☐ GR, ☐ PG, ☐ Other



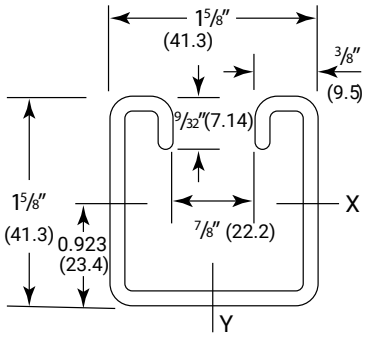
Wt/100 Ft: 179 Lbs

Specifications

Size:
1⅝" X 1⅝" (41.3 x 41.3mm)
12 Gauge Channel • wt./100 ft. - 194 lbs.

Materials:
Carbon Steel
Stainless Steel
Aluminum

Finishes
Pre-Galvanized
Hot Dip Galvanized - Post Fabrication
Supr-Green Powder Coated
Zinc Trivalent Chromium
PVC



LEGEND:
GR: Powder Coated Supr-Green
EG: Electro-Galvanized
PG: Pre-Galvanized
AL: Aluminum
HG: Hot Dipped Galvanized
PL: Plain
SS: Stainless Steel
ZTC: Zinc Trivalent Chromium Stainless Steel (**SS**), Zinc Trivalent Chromium (**ZTC**) and Hot Dipped Galvanized (**HG**) are specialty finishes. Pricing is located in the Specialty Strut Section of the Anvil-Strut price book.

ANVIL-STRUT
An ASC Engineered Solution

PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

Channel
Fig. AS 200

1 5/8" X 1 5/8" (41.3 x 41.3mm)
12 Gauge Channel • wt./100 ft. - 194 lbs
Stocked in pre-galvanized, plain, powder coated Supr-Green, zinc trivalent chromium, and hot dipped galvanized, in 10 & 20 ft. lengths. Note: Also available in Stainless Steel 304 & 316 Alloys. Other materials, finishes & lengths are available upon request.

Properties of Section

Catalog Number	Wt./Ft.		Area of Selection		X-X Axis						Y-Y Axis					
	Lbs.	Kg.	Sq. In.	Sq. CM	I in^4	I cm^4	S in^3	S cm^3	r in	r cm	I in^4	I cm^4	S in^3	S cm^3	r in	r cm
AS 200	1.94	2.9	0.552	3.561	0.188	7.825	0.208	3.409	0.584	1.483	0.236	9.823	0.290	4.752	0.654	1.661

I = Moment of Inertia S = Section Modulus r = Radius of Gyration

Beam and Column Loads

Span or Unbraced Height	Static Beam Load (X-X Axis)						Max. Allowable Load at Slot Face	Column Loading Data			
	Max Allowable Uniform Load	Deflection at Uniform Load	Uniform Load at Deflection					Max. Column Load Applied at C.G.			
			Span/180 Deflection	Span/240 Deflection	Span/360 Deflection	Weight of Channel		k=.65	k=.80	k=1.0	k=1.2
In	Lbs	In	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs
12	3,480	0.01	3.480	3,480	3,480	1.9	3,850	12,240	11,940	11,480	10,960
18	2,320	0.03	2,320	2,320	2,320	2.9	3,710	11,540	10,960	10,130	9,290
24	1,740	0.06	1,740	1,740	1,740	3.9	3,530	10,690	9,850	8,740	7,710
30	1,390	0.09	1,390	1,390	1,310	4.9	3,330	9,780	8,740	7,470	6,380
36	1,160	0.13	1,160	1,160	910	5.8	3,120	8,880	7,710	6,380	5,310
42	990	0.17	990	990	670	6.8	2,910	8,020	6,800	5,470	4,430
48	870	0.23	870	770	510	7.8	2,710	7,240	6,000	4,690	3,810
60	700	0.35	660	490	330	9.7	2,340	5,910	4,690	3,630	2,960
72	580	0.51	460	340	230	11.6	2,040	4,840	3,810	2,960	2,400
84	500	0.69	340	250	170	13.6	1,800	4,040	3,200	2,480	1,980
96	430	0.90	260	190	130	15.5	1,600	3,480	2,750	2,110	1,670
108	390	1.14	200	150	100	17.5	1,440	3,050	2,400	1,820	**
120	350	1.41	160	120	80	19.4	1,290	2,700	2,110	**	**
144	290	2.03	110	90	60	23.3	1,060	2,180	1,670	**	**
168	250	2.77	80	60	40	27.2	**	1,790	**	**	**
180	230	3.18	70	50	40	29.1	**	**	**	**	**
192	220	3.61	60	50	NR	31.6	**	**	**	**	**
216	190	4.57	50	40	NR	34.9	**	**	**	**	**
240	170	5.65	40	NR	NR	38.8	**	**	**	**	**

Bearing Load may limit load
** Not recommended - KL/r exceeds 200

Notes
1. The beam capacities shown above include the weight of the strut beam. The beam weight must be subtracted from these capacities to arrive at the net beam capacity.
2. Allowable beam loads are based on a uniformly loaded, simply supported beam. For capacities of a beam loaded at midspan at a single point, multiply the beam capacity by 50% and deflection by 80%.
3. The above chart shows beam capacities for strut without holes. For strut with holes, multiply by the following:
   EH by 88%, S by 90%,
   H (9/16 holes) by 88%, KO by 82% .
4. Refer to the Anvil-Strut Catalog for reduction factors for unbraced lengths.

ANVIL-STRUT
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Channel
Fig. AS 200

Beam and Column Loads – Metric

Span or Unbraced Height	Static Beam Load (X-X Axis)						Max. Allowable Load at Slot Face	Column Loading Data			
	Max Allowable Uniform Load	Deflection at Uniform Load	Uniform Load at Deflection					Max. Column Load Applied at C.G.			
			Span/180 Deflection	Span/240 Deflection	Span/360 Deflection	Weight of Channel		k=.65	k=.80	k=1.0	k=1.2
mm	Kn	mm	Kn	Kn	Kn	Kg	Kn	Kn	Kn	Kn	Kn
305	15.5	0.3	15.5	15.5	15.5	0.9	17.1	54.4	53.1	51.1	48.8
457	10.3	0.8	10.3	10.3	10.3	1.3	16.5	51.3	48.8	45.1	41.3
610	7.7	1.5	7.7	7.7	7.7	1.8	15.7	47.6	43.8	38.9	34.3
762	6.2	2.3	6.2	6.2	5.8	2.2	14.8	43.5	38.9	33.2	28.4
914	5.2	3.3	5.2	5.2	4.0	2.6	13.9	39.5	34.3	28.4	23.6
1,067	4.4	4.3	4.4	4.4	3.0	3.1	12.9	35.7	30.2	24.3	19.7
1,219	3.9	5.8	3.9	3.4	2.3	3.5	12.1	32.2	26.7	20.9	16.9
1,524	3.1	8.9	2.9	2.2	1.5	4.4	10.4	26.3	20.9	16.1	13.2
1,829	2.6	13.0	2.0	1.5	1.0	5.3	9.1	21.5	16.9	13.2	10.7
2,134	2.2	17.5	1.5	1.1	0.8	6.2	8.0	18.0	14.2	11.0	8.8
2,438	1.9	22.9	1.2	0.8	0.6	7.0	7.1	15.5	12.2	9.4	7.4
2,743	1.7	29.0	0.9	0.7	0.4	7.9	6.4	13.6	10.7	8.1	**
3,048	1.6	35.8	0.7	0.5	0.4	8.8	5.7	12.0	9.4	**	**
3,658	1.3	51.6	0.5	0.4	0.3	10.6	4.7	9.7	7.4	**	**
4,267	1.1	70.4	0.4	0.3	0.2	12.3	**	8.0	**	**	**
4,572	1.0	80.8	0.3	0.2	0.2	13.2	**	**	**	**	**
4,877	1.0	91.7	0.3	0.2	**	14.1	**	**	**	**	**
5,486	0.8	116.1	0.2	0.2	**	15.8	**	**	**	**	**
6,096	0.8	143.5	0.2	**	**	17.6	**	**	**	**	**

ANVIL-STRUT
An ASC Engineered Solution

Channel
Fig. AS 200

Materials

Carbon Steel: Channels are formed from high-quality, structural grade carbon steel which has been manufactured in accordance with ASTM A-1011-04- SS Grade 33 (hot rolled), or ASTM 366 (cold rolled), with mechanical properties of 33 ksi minimum yield and 52 ksi minimum tensile strength. The precision roll-forming process by which the channels are formed "cold works" the steel, thereby increasing its mechanical properties.

Stainless Steel: Channels are formed from chromium-nickel stainless steel sheet manufactured in accordance with ASTM A-240 specification, offered in both AISI Type 304 and 316 material to provide protection in varying corrosive conditions.

Aluminum: Extruded aluminum channel is produced from 6063-T6 alloy, and fittings are produced from 5052-H32 alloy, both in accordance with ASTM B-221 specifications. Aluminum is suitable for use in various corrosive environments.

Finishes

Pre-Galvanized: Hot dip, mill galvanized coating produced through a process of continuously passing the steel through a bath of molten zinc. This process is performed in accordance with ASTM A-653. The thickness of the zinc coating conforms with ASTM G-90 which represents a coating thickness of .90 ounces of zinc per square foot. This coating is applied to the steel master coils prior to slitting and fabrication.

Hot Dip Galvanized - Post Fabrication: The finished channel is completely immersed in a bath of molten zinc, resulting in the complete coating of all surfaces of the product, including edges and welds. Strut channels that are hot dip galvanized, have a total coating weight of 3.0 ounces of zinc per square foot in accordance with ASTM A-123 specification. This coating provides superior results in applications calling for prolonged outdoor exposure.

Supr-Green Powder Coating: Strut channels are coated after fabrication with polyester powder finish. This coating is applied using an electrostatic spray process, beginning with cleaning and phosphating, through a bonderite pretreatment process, and ending with oven curing. The resulting finish provides a high quality appearance and durability. Powder Coating is in accordance with ASTM B-117 (standard practice for operating salt spray (fog) apparatus) to 500 hours with less than $^{1}/_{8}$" scribe creep.

Zinc Trivalent Chromium: The finished channel undergoes a multi-step process consisting of electrogalvanizing, in accordance with ASTM B-633-85, followed by an application of zinc trivalent chromium, which provides the distinctive gold coloration of the finish. All surfaces are coated because the process is performed after fabrication.

PVC: A corrosive resistant PVC (polyvinyl chloride) coating is applied over the completed strut channel. The coating process consists of surface pretreatment, followed by preheating of the part, which is then passed through a fluidized bed of vinyl plastic powder. The powder melts onto the heated channel forming a smooth coating which undergoes a final heat curing.

ANVIL-STRUT
An ASC Engineered Solution

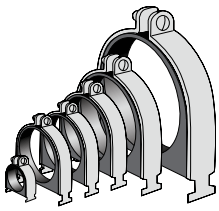
Cushion Clamp Assembly
Figs. AS 0040D through AS 106P

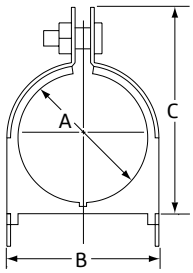
Specifications

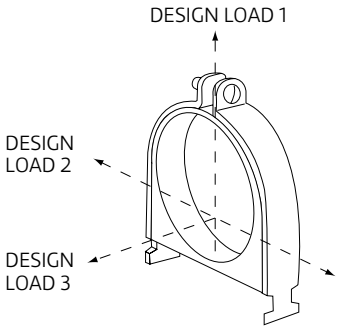
Materials:
Clamp: 1008–1018 Carbon Steel
Cushion: High Strength TPE
Locknut: Nylon Insert

Service Temperature:
-65˚F to 275˚F

Approvals:
UL 2043 Fire Test for Heat and
Visible Smoke Release
25/50 Flame Spread/Smoke Development Index







Description

Anvil–Strut Pipe Clamps are all manufactured to fit into the standard openings of 1⅝" channel to support runs of piping where desired, to secure the pipe in place.

☐ AS 0040D Thru AS 106P ☐ EG, ☐ 304SS, ☐ 316SS, ☐ ZTC

LEGEND:
GR: Powder Coated Supr–Green **EG:** Electro–Galvanized **PG:** Pre–Galvanized **AL:** Aluminum
HG: Hot Dipped Galvanized **PL:** Plain SS: Stainless Steel
ZTC: Zinc Trivalent Chromium Stainless Steel (**SS**), Zinc Trivalent Chromium (**ZTC**) and Hot Dipped Galvanized (**HG**) are specialty finishes. Pricing is located in the Specialty Strut Section of the Anvil–Strut price book.

ANVIL–STRUT
An ASC Engineered Solution

PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

Cushion Clamp Assembly
Figs. AS 004OD through AS 106P

Tube Series

Part Number	O.D. Size	A	B	C	Std Pkg	Wt/100 pcs
AS 004OD	¼"	0.25	0.62	0.98	25	10
AS 006ODN	⅜"	0.37	0.82	1.13	25	11
AS 008ODN	½"	0.50	0.94	1.34	25	13
AS 010ODN	⅝"	0.62	1.06	1.54	25	14
AS 012ODN	¾"	0.75	1.20	1.68	25	14
AS 014ODN	⅞"	0.87	1.31	1.82	25	15
AS 016OD	1"	1.00	1.44	1.95	25	17
AS 018ODN	1 ⅛"	1.12	1.57	2.08	20	18
AS 020OD	1 ¼"	1.25	1.70	2.21	20	18
AS 022ODN	1 ⅜"	1.37	1.82	2.34	20	20
AS 024OD	1 ½"	1.50	1.95	2.47	20	33
AS 026ODN	1 ⅝"	1.62	2.07	2.60	20	35
AS 028OD	1 ¾"	1.75	2.20	2.73	20	37
AS 032OD	2"	2.00	2.45	3.04	10	41
AS 034OD	2 ⅛"	2.12	2.57	3.23	10	46
AS 040OD	2 ½"	2.50	2.94	3.79	10	49
AS 042OD	2 ⅝"	2.62	3.07	3.92	5	51
AS 048OD	3"	3.00	3.57	4.42	5	57
AS 050OD	3 ⅛"	3.12	3.57	4.42	5	60
AS 058OD	3 ⅝"	3.62	4.20	5.11	5	70
AS 066OD	4 ⅛"	4.12	4.57	5.54	5	94
AS 082OD	5 ⅛"	5.12	5.57	6.54	5	125
AS 098OD	6 ⅛"	6.12	6.57	7.54	5	130

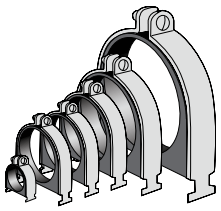
Std Pkg & Wt/100 pcs: See charts above.

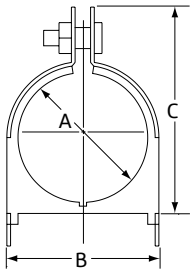
Specifications

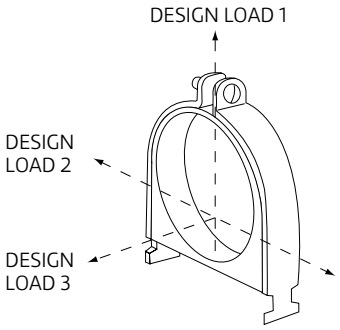
Materials:
Clamp: 1008–1018 Carbon Steel
Cushion: High Strength TPE
Locknut: Nylon Insert

Service Temperature:
-65˚F to 275˚F

Approvals:
UL 2043 Fire Test for Heat and
Visible Smoke Release
25/50 Flame Spread/Smoke Development Index







ANVIL-STRUT
An ASC Engineered Solution

Cushion Clamp Assembly
Figs. AS 004OD through AS 106P

Tube Series

Copper & Steel Tube O.D. Size	Design Load 1 (lbs)	Design Load 2 (lbs)	Design Load 3 (lbs)
1/4"	400	50	50
3/8"	400	50	50
1/2"	400	50	50
5/8"	400	50	50
3/4"	600	75	75
7/8"	600	75	75
1"	600	75	75
1 1/8"	600	75	75
1 1/4"	600	75	75
1 3/8"	600	75	75
1 1/2"	600	75	75
1 5/8"	600	75	75
1 3/4"	800	125	125
1 7/8"	800	125	125
2"	800	125	125
2 1/8"	800	125	125
2 1/4"	800	125	125
2 3/8"	800	125	125
2 1/2"	800	125	125
2 5/8"	800	125	125
3"	800	125	125
3 1/8"	800	125	125
3 5/8"	1000	200	150
4 1/8"	1000	200	150
6 1/8"	1000	200	150

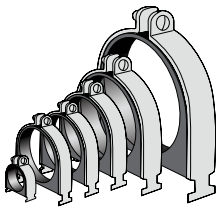
Std Pkg & Wt/100 pcs: See charts above.

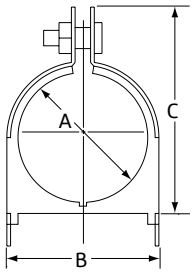
Specifications

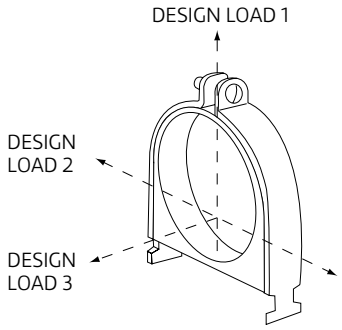
Materials:
Clamp: 1008–1018 Carbon Steel
Cushion: High Strength TPE
Locknut: Nylon Insert

Service Temperature:
-65˚F to 275˚F

Approvals:
UL 2043 Fire Test for Heat and
Visible Smoke Release
25/50 Flame Spread/Smoke Development Index







Cushion Clamp Assembly
Figs. AS 004OD through AS 106P

Pipe Series

Part Number	O.D. Size	A	B	C	Std Pkg	Wt/100 pcs
AS 009P	¼" Pipe	0.54	0.98	1.34	25	13
AS 011P	⅜" Pipe	0.67	1.13	1.54	25	14
AS 014P	½" Pipe	0.84	1.29	1.82	25	15
AS 017P	¾" Pipe	1.05	1.50	2.08	20	17
AS 021P	1" Pipe	1.31	1.76	2.34	20	19
AS 027P	1 ¼" Pipe	1.66	2.17	2.73	20	35
AS 030ODP	1 ½" Pipe	1.90	2.35	2.86	20	39
AS 038ODP	2" Pipe	2.37	2.82	3.67	10	47
AS 046ODP	2 ½" Pipe	2.87	3.32	4.17	5	55
AS 056ODP	3" Pipe	3.50	3.95	4.79	5	55
AS 064ODP	3 ½" Pipe	4.00	4.45	5.42	5	88
AS 072ODP	4" Pipe	4.50	4.95	5.92	5	110
AS 089P	5" Pipe	5.56	6.01	6.92	5	130
AS 106P	6" Pipe	6.62	7.07	8.23	5	140

Pipe Series

Pipe Sizes (Nominal)	Design Load 1 (lbs)	Design Load 2 (lbs)	Design Load 3 (lbs)
¼"	400	50	50
⅜"	600	75	75
½"	600	75	75
¾"	600	75	75
1"	600	75	75
1 ¼"	800	125	125
1 ½"	800	125	125
2"	800	125	125
2 ½"	800	125	125
3"	1000	200	150
3 ½"	1000	200	150
4"	1000	200	150
5"	1000	200	150
6"	1000	200	150

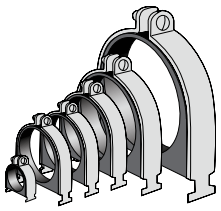
Std Pkg & Wt/100 pcs: See charts above.

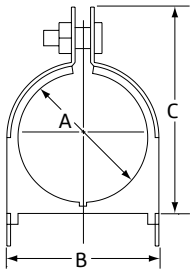
Specifications

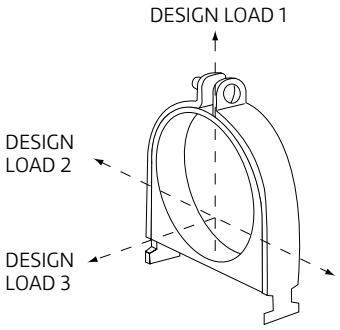
Materials:
Clamp: 1008–1018 Carbon Steel
Cushion: High Strength TPE
Locknut: Nylon Insert

Service Temperature:
-65˚F to 275˚F

Approvals:
UL 2043 Fire Test for Heat and
Visible Smoke Release
25/50 Flame Spread/Smoke Development Index



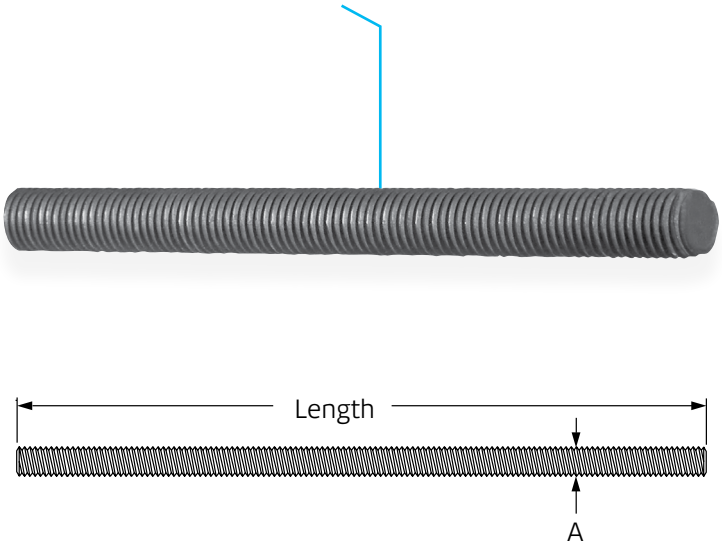




ANVIL-STRUT
An ASC Engineered Solution

ASC Engineered Solutions

Continuous Threaded Rod
Fig. 146 (Formerly Afcon Fig. 650)



Size Range: ¼" through 1½" stocked in six, ten, and twelve foot lengths. Other even foot lengths can be furnished to order.

Material: Carbon steel or Stainless Steel Gr 304

Threads: National Coarse (USS), rod threaded complete length.

Finish: ☐ Plain or ☐ Zinc Plated (Hot-Dip Galvanized optional)

Maximum Temperature: Zinc Plated 450˚F, Stainless Steel 650˚ F

Approvals: Complies with MSS SP-58.

Ordering: Specify rod diameter and length, figure number,name and finish.

Note: The acceptability of galvanized coatings at temperatures above 450˚F is at the discretion of the end user.

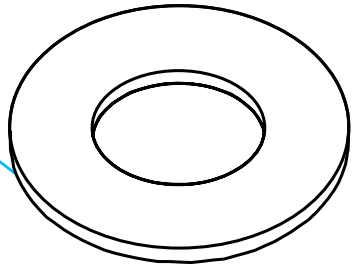
ANVIL
An ASC Engineered Solution

Fig. 146: Dimensions (in) • **Loads** (lbs) • **Weight** (lbs)

Rod Size A	Threads per Inch	Max Load 650˚ F	Weight per Ft.
¼	20	240	0.12
⅜	16	730	0.30
½	13	1,350	0.53
⅝	11	2,160	0.84
¾	10	3,230	1.20
⅞	9	4,480	1.70
1	8	5,900	2.30
1¼	7	9,500	3.60
1½	6	13,800	5.10

PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

Flat Washer
Figs. AS 209, AS 3500, AS 211, AS 83, AS 209, AS 6108, AS 230

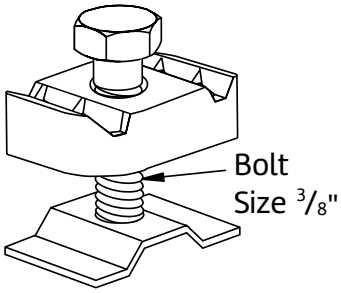


Description

Anvil-Strut Hardware, when used in conjunction with Anvil-Strut Channel and Nuts, provides a superior grip between channels and fittings.

Seismic Rod Stiffener

☐ AS 3500 ☐ EG, ☐ ZTC

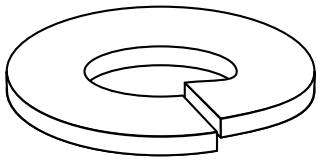


Size	Wt./100 Pcs.
3/8" – 5/8"	16

Std Pkg: 25 · Wt/100 pcs: See chart above.

Lock Washer

☐ AS 211 ☐ EG



Size	Wt./100 Pcs.
1/4"	0.3
3/8"	0.7
1/2"	1.5

Std Pkg: 100 · Wt/100 pcs: See chart above.

LEGEND:
GR: Powder Coated Supr-Green **EG:** Electro-Galvanized **PG:** Pre-Galvanized **AL:** Aluminum
HG: Hot Dipped Galvanized **PL:** Plain **SS:** Stainless Steel
ZTC: Zinc Trivalent Chromium Stainless Steel (**SS**), Zinc Trivalent Chromium (**ZTC**) and Hot Dipped Galvanized (**HG**) are specialty finishes. Pricing is located in the Specialty Strut Section of the Anvil-Strut price book.

ANVIL-STRUT
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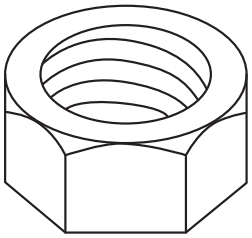
PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

ASC Engineered Solutions

Flat Washer
Figs. AS 209, AS 3500, AS 211, AS 83, AS 209, AS 6108, AS 230

Hexagon Nut

☐ AS 83 ☑ EG

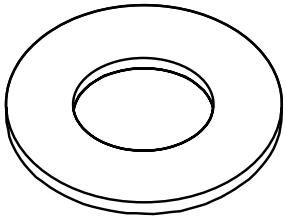


Size	Std. Pkg.	Wt./100 Pcs.
1/4"	500	0.6
3/8"	500	1.6
1/2"	100	4.8
5/8"	50	7.0
3/4"	50	12.0

Std Pkg & Wt/100 pcs: See chart above.

Flat Washer

☐ AS 209 ☐ EG

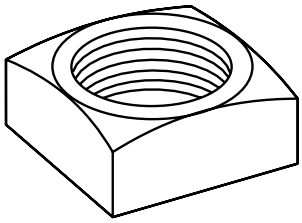


Size	Std. Pkg.	Wt./100 Pcs.
1/4"	200	0.7
3/8"	100	1.5
1/2"	100	3.5
5/8"	100	8.0
3/4"	100	11.0

Std Pkg & Wt/100 pcs: See chart above.

Square Nut

☐ AS 6108 ☐ EG

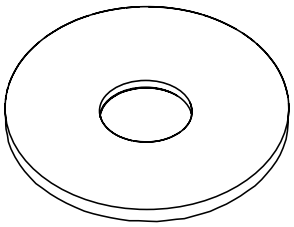


Size	Std. Pkg.	Wt./100 Pcs.
1/4"	100	0.9
5/16"	100	1.6
3/8"	100	2.7
1/2"	100	5.8

Std Pkg & Wt/100 pcs: See chart above.

Square Nut

☐ AS 230 ☐ EG



Size	Std. Pkg.	Wt./100 Pcs.
1/4"	100	3.3
3/8"	100	3.0
1/2"	100	2.8

Std Pkg & Wt/100 pcs: See chart above.

LEGEND:
GR: Powder Coated Supr-Green **EG:** Electro-Galvanized **PG:** Pre-Galvanized **AL:** Aluminum
HG: Hot Dipped Galvanized **PL:** Plain **SS:** Stainless Steel
ZTC: Zinc Trivalent Chromium Stainless Steel (**SS**), Zinc Trivalent Chromium (**ZTC**) and Hot Dipped Galvanized (**HG**) are specialty finishes. Pricing is located in the Specialty Strut Section of the Anvil-Strut price book.

ANVIL-STRUT An ASC Engineered Solution

DURA-BLOK Rooftop Supports

DURA-BLOK™ is made from 100% recycled rubber and qualifies for LEED credits. Reflective strips on both sides allow for easy product visibility.

Channels are through bolted on all sizes for added strength and a 1" (25.4mm) gap between blocks allows water to flow freely around longer assemblies.

Product composition is not sharp or abrasive, helping to extend the roof life and no penetration through the roof is required.

The DURA-BLOK dampens vibration, needs no supplemental rubber pad, and will not float or blow away.

The DURA-BLOK is UV resistant and is suitable for any type roofing material or other flat surface. For sloped surfaces see page 289 for adjustable hinge fitting (B634).

The open ends allow for easier adjustments to DBE, DBR, and DBM series supports. A drainage channel through the center of the block keeps water from pooling under the support.

DURA-BLOK can be used to support piping, HVAC/Ducts, roof walkways, conduit and cable tray.

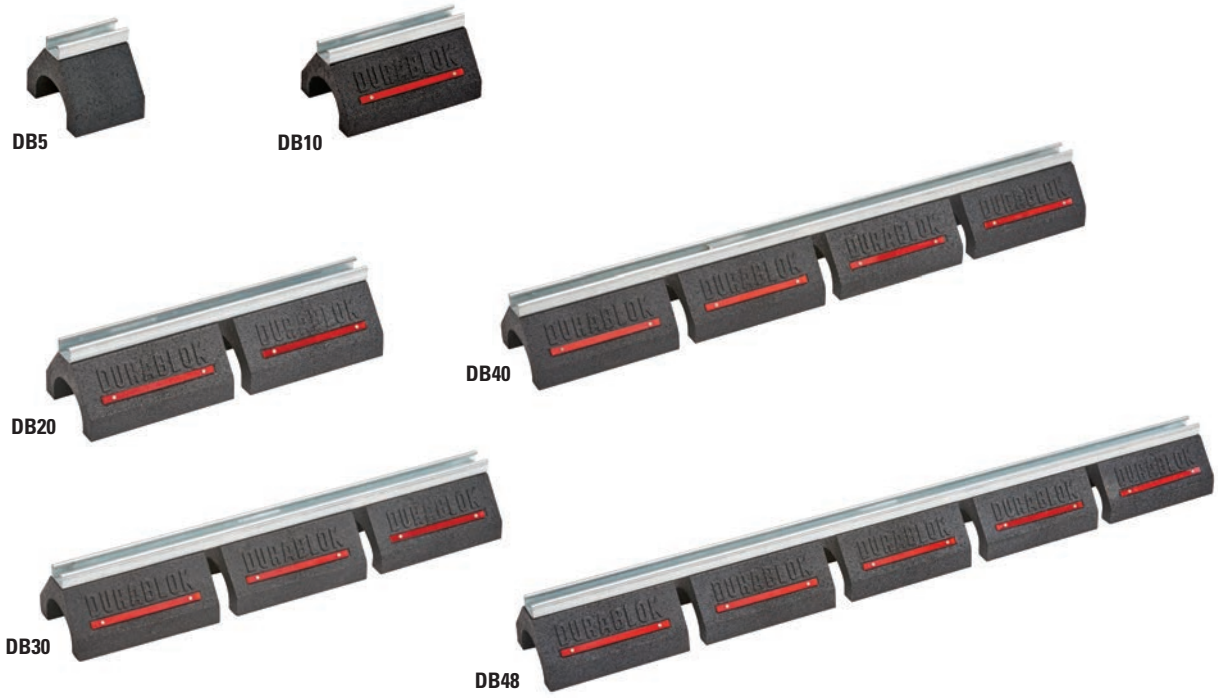
DURA-BLOK Rooftop Supports

DB - Series

Base with Galv. Channel - 1" (25.4mm) high
Dimensions - 5" (127mm) High x 6" (152mm) Wide x Length (overall length)
Material - 100% recycled rubber, UV resistant
Ultimate Load Capacity - (uniform load) *

DB5 = 500 lbs. (2.22kN)
DB10 = 500 lbs. (2.22kN)
DB20 = 1,000 lbs. (4.45kN)
DB30 = 1,500 lbs. (6.67kN)
DB40 = 2,000 lbs. (8.89kN)
DB48 = 2,500 lbs. (11.12kN)

DURA-BLOK™ DB-Series channel support is designed for superior support of piping systems, cable tray, HVAC equipment, walkway systems and many other applications. The DURA-BLOK is UV resistant and suitable for installation on any type of roofing material or other flat surfaces. For sloped roofs see adjustable hinge fitting (B634).



Part No.	Height in.	Height (mm)	Width in.	Width (mm)	Overall Length in.	Overall Length (mm)	Weight Each lbs.	Weight Each (kg)
DB5	5"	(127)	6"	(152)	4.8"	(122)	2.75	(1.25)
DB10	5"	(127)	6"	(152)	9.6"	(244)	5.28	(2.39)
DB20	5"	(127)	6"	(152)	20.2"	(513)	10.63	(4.82)
DB30	5"	(127)	6"	(152)	30.8"	(782)	15.99	(7.25)
DB40	5"	(127)	6"	(152)	41.4"	(1052)	21.34	(9.68)
DB48	5"	(127)	6"	(152)	52.0"	(1321)	26.70	(12.4)

For pipe straps/clamps, rollers and roller supports that can be used with these DURA-BLOK supports, see page 302.

*** For Roof Loading, Consult Roofing Manufacturer or Engineer. As with most commercial roofs, the weakest point may be the insulation board beneath the rubber membrane.**

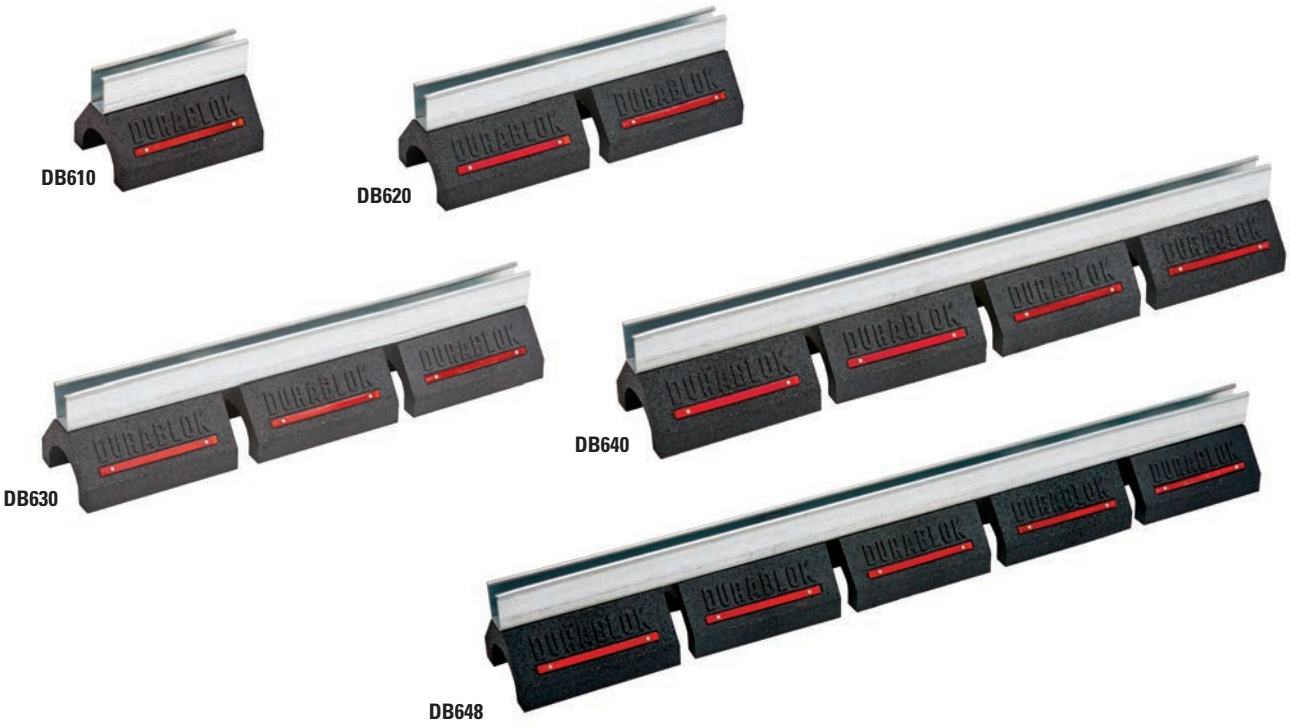
All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

DB6 - Series

Base with Galv. Channel - 2 7/16" (62mm) high
Dimensions - 6 7/16" (163mm) High x 6" (152mm) Wide x Length (overall length)
Material - 100% recycled rubber, UV resistant
Ultimate Load Capacity - (uniform load) *

DB610 = 500 lbs. (2.22kN)
DB620 = 1,000 lbs. (4.45kN)
DB630 = 1,500 lbs. (6.67kN)
DB640 = 2,000 lbs. (8.89kN)
DB648 = 2,500 lbs. (22.12kN)

DURA-BLOK™ DB6-Series channel support is designed for superior support of piping systems, cable tray, HVAC equipment, walkway systems and many other applications. The DURA-BLOK is UV resistant and suitable for installation on any type of roofing material or other flat surfaces. For sloped roofs see adjustable hinge fitting (B634).



Part No.	Height in. (mm)	Width in. (mm)	Overall Length in. (mm)	Weight Each lbs. (kg)
DB610	6 7/16" (167)	6" (152)	9.6" (244)	6.36 (2.88)
DB620	6 7/16" (167)	6" (152)	20.2" (513)	12.90 (5.85)
DB630	6 7/16" (167)	6" (152)	30.8" (782)	19.45 (8.82)
DB640	6 7/16" (167)	6" (152)	41.4" (1052)	26.00 (11.79)
DB648	6 7/16" (167)	6" (152)	52.0" (1321)	32.55 (14.76)

For pipe straps/clamps, rollers and roller supports that can be used with these DURA-BLOK supports, see page 302.

*** For Roof Loading, Consult Roofing Manufacturer or Engineer. As with most commercial roofs, the weakest point may be the insulation board beneath the rubber membrane.**

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.