

شر كة محمد عبدالرحمن فرحات للصناعة Mohammad A. Farhat Co. For Industry

Rectangular Ducts





Assure Success with Customer Together Assure Success with Customer Together

ABOUT US

FMC Metal Factory, founded in 2021 in the city of Jeddah, for its Excellence, Engineering, Professionalism, and Experience in the field of fabrication of HVAC duct and its Accessories. The company has been a forerunner in the Construction field with his vast experience, commitment, adoption of new technologies and challenges by emerging as one of a key player. It offers a wide range of services for Supply, Installation, Testing and Commissioning in HVAC field. The group is leading under the supreme guidance of Mr. Mohamed Abdul Rahman Farhat, who has a long life experience in the Saudi market.

Vision

Our ambition is to amplify the presence of FMC as a recognized company in the field of construction. We aspire to extent our professional services abroad in the coming years.

Mission

Form valuable long-term relationships with our clients and partners.

Manage large and complex projects. Be a reliable company.

Compete successfully in the Construction market of the region with high efficiency, professionalism and honesty in order to maintain, our outstanding reputation.

Objective

Our aim is to enhance the lifestyle of the communities we serve through consistent, timely, efficient and added value delivery of engineered, innovative, and tailormade technology solutions that never fails to exceed expectations

Commitment

Constantly strive to ensure that amidst all the projects exists a great deal of passion and commitment to provide quality services and to deliver clients satisfaction.

Maintain leadership in project management capability.

Provide an open and flexible approach towards the needs of our clients by listening and respecting their views and by being ahead of emerging trends.

Deliver superior value through our consistent implementation of advanced methods and state of the art solutions.

Our Team

FMC's work force is the main asset which represent and implement all projects in professional manors due to the on going training programs that we provide to our, head office employees, engineers, supervisors, technicians, drivers, labors and all of our working force whom reflect their professions on sites.



INTRODUCTION



FMC Matel factory equipped with latest technology to meet the growing demands with a prompt action by serving the best quality products, keen to establish themselves a pioneer in the market with the help of its well qualified engineers, skilled technicians and producing the best quality of products. FMC manufactures the ducts and it's accessories compliance to SMACNA and DW/144 construction schedule by adhering to internal QA/ QC guidelines to serve with best of the best products. FMC Metal Factory active under ISO Certification for the scope of manufacturing Ducts works, Fittings & Related products which approved by the main Consultants and contracting companies.





Fabrication of Rectangular Ducts shall be based on Drawing provided by the client, by following below procedures:

1. Preparing Tag. Drawings for each Job order





2. Release the cutting list and fabrication reports, for customer review

Job Order

Project: PROJECTS/6. FMC CONSTRUCTION COMPANY/NEOM PROJECT - 2ND PHASE/RISER DUCT Job Name: 156-21 - RISER DUCT - UNIT 01

Date: 9/27/2022 Time: 9:15 AM User: Abdul Haseeb:

Sr. #	ltem Name	Material X Gauge	End 1 Size	End 2 Size	End 3 Size	Length/ Angle	ltem Qty	Connector Name	Insul. Status	Insul. Material	Insul. Area	ltem. Area	Corners	Weight	Notes
1	Straight	Galvanised x 1.2	2000×1000	2000×1000		740 (mm)	1	Angle Bar 50x50x5 GAL, Angle Bar 50x50x5 GAL	Off		0.0	4.68	0	44.88	Supply Air
2	Radius Bend	Galvanised x 1.2	1000x2000	1000×2000		90	1	Angle Bar 50x50x5 GAL, Angle Bar 50x50x5 GAL	Off		0.0	10.68	0	102.48	Supply Air
3	Radius Bend	Galvanised x 1.2	1000x2000	1000×2000		45	1	Angle Bar 50x50x5 GAL, Angle Bar 50x50x5 GAL	Off		0.0	4.96	0	47.64	Supply Air
4	Straight	Galvanised x 1.2	2000×1000	2000×1000		680 (mm)	1	Angle Bar 50x50x5 GAL, Angle Bar 50x50x5 GAL	Off		0.0	4.30	0	41.32	Supply Air
5	Straight	Galvanised x 1.2	2000×1000	2000×1000		680 (mm)	1	Angle Bar 50x50x5 GAL, Angle Bar 50x50x5 GAL	Off		0.0	4.30	0	41.32	Supply Air
6	Radius Bend	Galvanised x 1.2	1000x2000	1000x2000		45	1	Angle Bar 50x50x5 GAL, Angle Bar 50x50x5 GAL	Off		0.0	4.96	0	47.64	Supply Air
7	Taper	Galvanised x 1.2	1000×2000	1450x2400		690 (mm)	1	Angle Bar 50x50x5 GAL, Angle Bar 50x50x5 GAL	Off		0.0	5.64	0	54.14	Supply Air
8	Taper	Galvanised x 1.2	1000x2000	1450x2400		740 (mm)	1	Angle Bar 50x50x5 GAL, Angle Bar 50x50x5 GAL	Off		0.0	5.99	0	57.47	Supply Air
9	Radius Bend	Galvanised x 1.2	1000x2000	1000x2000		90	1	Angle Bar 50x50x5 GAL, Angle Bar 50x50x5 GAL	Off		0.0	11.57	0	111.11	Return Air
10	Taper	Galvanised x 1.2	1000x2000	1300x2300		540 (mm)	1	Angle Bar 50x50x5 GAL, Angle Bar 50x50x5 GAL	Off		0.0	4.24	0	40.71	Return Air
11	Taper	Galvanised x 1.2	1000x2000	1300x2300		525 (mm)	1	Angle Bar 50x50x5 GAL, Angle Bar 50x50x5 GAL	Off		0.0	4.14	0	39.75	Return Air
12	Radius Bend	Galvanised x 1.2	1000x2000	1000x2000		90	1	Angle Bar 50x50x5 GAL, Angle Bar 50x50x5 GAL	Off		0.0	11.57	0	111.11	Return Air
13	Straight	Galvanised x 1.2	2000x1000	2000×1000		330 (mm)	1	Angle Bar 50x50x5 GAL, Angle Bar 50x50x5 GAL	Off		0.0	2.14	0	20.56	Return Air
14	Bell Mouth	Galvanised x 1.2	2000x1000	2200x1200		330 (mm)	1	Angle Bar 50x50x5 GAL, WireMesh	Off		0.0	2.69	0	25.78	Return Air
							14				0.0	81.87	0	785.90	



3. Printing labels for each item showing complete details (Item number, specification, dimensions, project name, customer name ...etc.)

1	:: Supply Air		
Project:	PROJECTS/6. FM NEOM PROJECT	METAL FACTORY	
Job Name: 15	6-21 - RISER DUCT -	UNIT 01	
Material & Gau	ge: Galvanised x 1.2	ltem Area: 4.7 (sq m)	
Name: Str	aight		
END 1: 200	0 x 1000 (mm)	Angle Bar 50x50x5 GAL	
END 2: 2000 x 1000 (mm) Angle Bar 50x50x5 GAL			
Length / Ar	ngle: 740 (mm)	Insulation:	

4. In case of more details required, 3-D sketches can be provided to ensure high accuracy





2	:: Supply Air		
Project:	PROJECTS/6. FM	C CONSTRUCTION COMPANY/ - 2ND PHASE/RISER DUCT	
Job Name: 15	6-21 - RISER DUCT -	UNIT 01	
Material & Gau	ge: Galvanised x 1.2	ltem Area: 10.1 (sq m)	
Name: Ra	dius Bend	-	
END 1: 100	00 x 2000 (mm) Angle Bar 50x50x5 GAL		
END 2: 100	0 x 2000 (mm)	Angle Bar 50x50x5 GAL	
Length / Ar	ıgle: 90	Insulation:	

Profiled Item Print







Dimentions (mm)	
A = Width = 1000.0 B = Depth = 2000.0 C = Angle = 90.0	
A = Top Extension = 0.0	
B = Bottom Extension = 0.0	
C = Inner Radius = 150.0	
Connectors	
C1 = Angle Bar 50x50x5 GAL C2 = Angle Bar 50x50x5 GAL	



E



7	:: Supply Air		
Project:	PROJECTS/6. FM	C CONSTRUCTION COMPANY/ - 2ND PHASE/RISER DUCT	METAL FACTORY
Job Name: 15	6-21 - RISER DUCT -	UNIT 01	
Material & Gau	ge: Galvanised x 1.2	ltem Area: 5.3 (sq m)	
Name: Ta	per		
END 1: 100	0 x 2000 (mm)	Angle Bar 50x50x5 GAL	
END 2: 145	0 x 2400 (mm)	Angle Bar 50x50x5 GAL	
Length / Ar	ıgle: 690 (mm)	Insulation:	

Profiled Item Print





Dimentions (mm)

- A = Width In = 1000.0
- B = Depth In = 2000.0
- C = Width Out = 1450.0
- D = Depth Out = 2400.0
- E = Length = 690.0
- F = Extension In = 50.0
- G = Extension Out = 50.0
- H = Offset Width = Central
- I = Offset Depth = Flat Bottam
- J = Angle = 34.1

Connectors

- C1 = Angle Bar 50x50x5 GAL
- C2 = Angle Bar 50x50x5 GAL







5. Preparing material summary reports to release the job order for manufacturing process

Area Summary (M	lanufactu	red)							
Ref :							Job No : 0		
Contract Name: 156-21 - RISER DUCT - UNIT 01 Date: 9/24/2022									
Section: None, Material: Galvanised, Type: Straights									
Description	Qty	Length	Size	0.6 (sq m)	0.8 (sq m)	1.0 (sq m)	1.2 (sq m)		
Straight	2.4 (m)	2.4 (m)	2000 X 1000				15.4		
		2.4		0.0	0.0	0.0	15.4		
Grand Totals:									
Material				0.6 (sq m)	0.8 (sq m)	1.0 (sq m)	1.2 (sq m)		
Ductwork: Galvanized							78.0		
				0.0	0.0	0.0	78.0		
Section: None, Material	: Galvanised,	, Type: Straights							
Description	Qty	Length/Angle (mm)	Size	0.6 (sq m)	0.8 (sq m)	1.0 (sq m)	1.2 (sq m)		
Bell Mouth	1	330 (mm)	2000 X 1000				2.5		
Radius Bend	1	90	2000 X 1000				10.1		
Radius Bend	2	45	2000 X 1000				9.4		
Radius Bend	2	90	2000 X 1000				21.8		
Taper	1	690 (mm)	2000 X 1000				5.3		
Taper	1	740 (mm)	2000 X 1000				5.6		
Taper	1	540 (mm)	2000 X 1000				4.0		
Taper	1	525 (mm)	2000 X 1000				3.9		
				0.0	0.0	0.0	62.6		
Connector List I	Breakdow	/n							

Project: PROJECTS/6. FMC CONSTRUCTION COMPANY/NEOM PROJECT - 2ND PHASE/RISER DUCT

Contract Name: 156-21 - RISER DUCT - UNIT 01

User: Abdul Haseeb: Date: 9/24/2022

Section: None, Material: Galvanised, Type: Straights									
Item No	Qty	Width	Depth	Cut	Len1	Len2	Length (m)	Corners	Bolts
2, 2, 3, 3, 6, 6, 7, 8, 9, 9, 10, 11, 12, 12	14	1000	2000	28	1005.0	2105.0	87.08	0	0
10, 11	2	1300	2300	4	1305.0	2405.0	14.84	0	0
7,8	2	1450	2400	4	1455.0	2505.0	15.84	0	0
1, 1, 4, 4, 5, 5, 13, 13, 14	9	2000	1000	18	2105.0	1005.0	55.98	0	0
							173.74	0	0



LONGITUDINAL SEAMS

Straight Ducts are Beaded



Straight Ducts are Beaded





Materials Used for Ductworks:

Galvanized Steel : (Standard) L.F.Q. Complying with ASTM A653 and Having G90 Coating Designation.
Stainless Steel : (Optional) Complying with ASTM A240M / A480M, Grade 304, 304L, 316 & 316L.
Aluminum Metal : (Optional) Complying with ASTM B209, Alloy 3003, Temper H14.

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STRAIGHT DUCT & FIITINGS



Taper





Radius Bend



Shoe Branch



WxD -

Straight + 2 Branches

Ductworks:

Radius Offset



- Galvanized Steel : (Standard) L.F.Q. Complying with ASTM A653 and Having G90 Coating Designation.
- Stainless Steel : (Optional) Complying with ASTM A240M / A480M, Grade 304, 304L, 316 & 316L.
- Aluminum Metal : (Optional) Complying with ASTM B209, Alloy 3003, Temper H14.



STRAIGHT DUCT & FIITINGS

Square to Round



Side Branch

Splitter Damper Optional

Radius Tee



Plenum Box

Side or Top Connection



Splitter Damper







DUCT LINING

Materials Used for Ductworks:



Galvanized Steel : (Standard) L.F.Q. Complying with ASTM A653 and Having G90 Coating Designation.
Stainless Steel : (Optional) Complying with ASTM A240M / A480M, Grade 304, 304L, 316 & 316L.
Aluminum Metal : (Optional) Complying with ASTM B209, Alloy 3003, Temper H14.



PLENUM BOX

* Plenum Box: Fabricated of 24 Gauge Galvanized Iron - Standard.

1- Volume Control Damper.

- * Acoustic Liner: Clean Liner 25mm, 24 or 48 kg/m³, is faced with a Black, Strong, Durable, Dimensionally Stable Woven Glass Fabric.
- * Optional:
- 2- Inside Insulation Covered with Galvanized Perforated Sheet Insuring Full Protection.
- 3- Acoustic Liner Thickness & Density as per Client Request.
- 4- Rubber Insulation.



Materials Used for Ductworks:

- Galvanized Steel : (Standard) L.F.O. Complying with ASTM A653 and Having G90 Coating Designation.
- Stainless Steel : (Optional) Complying with ASTM A240M / A480M, Grade 304, 304L, 316 & 316L.
- Aluminum Metal : (Optional) Complying with ASTM B209, Alloy 3003, Temper H14.

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TRANSVERSE JOINTS





Angle Flanged Joint

- Duct Ends Turn up of 10mm

Materials

Used for

Ductworks:

- Fixing Bolts at Each Corner and intermediately Centers at 150mm



Companion Angle & Reinforcement are made of Hot Dip Galvanized Steel Angle



- Galvanized Steel : (Standard) L.F.Q. Complying with ASTM A653 and Having G90 Coating Designation.
- Stainless Steel : (Optional) Complying with ASTM A240M / A480M, Grade 304, 304L, 316 & 316L.
- Aluminum Metal : (Optional) Complying with ASTM B209, Alloy 3003, Temper H14.
Note: Standard Length of Hemmed "S", Standing "S", C Cleat & Drive Slip is 1220mm.

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DUCTWORK CONSTRUCTION SCHEDULE

TABLE - 1

Construction Schedule 1 Inch W.G As Per SMACNA

MAX.DUCT DIMENSION	U.S. GAGE	LONGITUDINAL CONNECTION	INTERMEDIATE REINFORCEMENT	TRANSVERSE CONNECTION	SPACING
0-300	26	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	HEMMED S-SLIP (GA.24) C-DRIVE (GA.24)	1220
305-900	26	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120
905-1200	24	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120
1250-1500	22	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120

TABLE - 2S

Construction Schedule 2 inch W.G as per SMACNA / S&C

MAX.DUCT DIMENSION	U.S. GAGE	LONGITUDINAL CONNECTION	INTERMEDIATE REINFORCEMENT	TRANSVERSE CONNECTION	SPACING
0-300	26	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	HEMMED S-SLIP (GA.24) C-DRIVE (GA.24)	1220
305-700	26	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120
705-900	24	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120
905-1000	22	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120
1050-1200	20	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120
1250-1500	18	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	DM-35	1220
1550-2100	18	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	COMPANION ANGLE 50x50x5mm	1200
2150-2400	18	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	COMPANION ANGLE 50x50x5mm	1200
2450-2700	16	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	COMPANION ANGLE 50x50x5mm	1200

TABLE – 2T

Construction Schedule 2 inch W.G as per SMACNA / TDC

MAX.DUCT DIMENSION	U.S. GAGE	LONGITUDINAL	INTERMEDIATE REINFORCEMENT	TRANSVERSE CONNECTION	SPACING
0-700	26	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120
705-900	24	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120
905-1000	22	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120
1050-1200	20	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120
1250-1500	18	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	DM-35	1220
1550-2100	18	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	COMPANION ANGLE 50x50x5mm	1200
2150-2400	18	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	COMPANION ANGLE 50x50x5mm	1200
2450-2700	16	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	COMPANION ANGLE 50x50x5mm	1200





DUCTWORK CONSTRUCTION SCHEDULE

TABLE – 3

Construction Schedule 3 inch W.G as per SMACNA

MAX.DUCT DIMENSION	U.S. GAGE	LONGITUDINAL	INTERMEDIATE REINFORCEMENT	TRANSVERSE CONNECTION	SPACING
0-750	24	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120
755-900	22	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120
905-1000	20	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120
1050-1200	18	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	DM-35	1220
1250-1800	18	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	COMPANION ANGLE 50x50x5mm	1200
1850-2100	16	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	COMPANION ANGLE 50x50x5mm	1200
2150-2400	16	PITTSBURGH (LOCK SEAM)	COMPANION ANGLE 50x50x5mm @600 max. c-c	COMPANION ANGLE 50x50x5mm	1200

TABLE – 4

Construction Schedule 4 inch W.G as per SMACNA

MAX.DUCT DIMENSION	U.S. GAGE	LONGITUDINAL	INTERMEDIATE REINFORCEMENT	TRANSVERSE CONNECTION	SPACING
0-650	24	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120
655-750	22	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120
755-900	20	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120
905-1000	18	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	DM-35	1220
1050-1500	18	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	COMPANION ANGLE 50x50x5mm	1200
1550-2100	16	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	COMPANION ANGLE 50x50x5mm	1200
2150-2400	16	PITTSBURGH (LOCK SEAM)	COMPANION ANGLE 50x50x5mm @600 max. c-c	COMPANION ANGLE 50x50x5mm	1200

TABLE – 6

Construction Schedule 6 inch W.G as per SMACNA

MAX.DUCT DIMENSION	U.S. GAGE	LONGITUDINAL CONNECTION	INTERMEDIATE REINFORCEMENT	TRANSVERSE CONNECTION	SPACING		
0-500	24	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120		
555-650	22	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120		
655-750	20	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120		
755-900	18	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	DM-35	1220		
905-1200	18	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	COMPANION ANGLE 50x50x5mm	1200		
1250-1500	16	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	COMPANION ANGLE 50x50x5mm	1200		
1550-2100	16	PITTSBURGH (LOCK SEAM)	COMPANION ANGLE 50x50x5mm @600 max_c-c	COMPANION ANGLE 50x50x5mm	1200		



DUCTWORK CONSTRUCTION SCHEDULE

TABLE – 10

Construction Schedule 10 inch W.G as per SMACNA

MAX.DUCT DIMENSION	U.S. GAGE	LONGITUDINAL CONNECTION	INTERMEDIATE REINFORCEMENT	TRANSVERSE CONNECTION	SPACING
0-300	24	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120
305-550	20	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	TDC	1120
555-700	18	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	DM-35	1220
705-1000	18	PITTSBURGH (LOCK SEAM)	NOT REQUIRED	COMPANION ANGLE 50x50x5mm	1200
1050-1500	18	PITTSBURGH (LOCK SEAM) COMPANION ANGLE 50x50x5mm @600 max. c-c 50x50x5mm		COMPANION ANGLE 50x50x5mm	1200
1550-2100	16	PITTSBURGH (LOCK SEAM)	COMPANION ANGLE 60x60x6mm @600 max. c-c, with Tie Rod	COMPANION ANGLE 60x60x6mm	1200



APPENDIX A

Galvanaized Sheet Thickness Tolerances

	Thickness in Inches		Weight				Thickness in Millimeters			
Gage	Min.	Max.	Nom.	Min Ib/sf	Nom. Ib/sf	Max. lb/sf	Nom. kg/m2	Min.	Max.	Nom.
33	.0060	.0120	.0090	.2409	.376	.486		.1524	.3048	.2286
32	.0104	.0164	.0134	.4204	.563	.665		.2642	.4166	.3404
31	.0112	.0172	.0142	.4531	.594	.698		.2845	.4369	.3607
30	.0127	.0187	.0157	.5143	.656	.759	3.20	.3188	.4783	.3988
29	.0142	.020	.0172	.5755	.719	.820		.3569	.5169	.4369
28	.0157	.0217	.0187	.6367	.781	.881	3.81	.3950	.5550	.4750
27	.0172	.0232	.0202	.6979	.844	.943		.4331	.5931	.5131
26	.0187	.0247	.0217	.7591	.906	1.004	4.42	.4712	.6312	.5512
25	.0217	.0287	.0247	.8407		1.167		.5274	.7274	.6274
24	.0236	.0316	.0276	.9590	1.156	1.285	5.64	.6010	.8010	.7010
23	.0266	.0346	.0306	1.0814		1.408		6772	.8772	.7772
22	.0296	.0376	.0336	1.2038	1.406	1.530	6.86	.7534	.9534	.8534
21	.0326	.0406	.0336	1.3263		1.653		.8296	1.0296	.9296
20	.0356	.0436	.0396	1.4486	1.656	1.775	8.08	.906	1.106	1.006
19	.0406	.0506	.0456	1.6526		2.061		1.028	1.288	1.158
18	.0466	.0566	.0516	1.8974	2.156	2.305	10.52	1.181	1.441	1.311
17	.0525	.0625	.0575	2.1381		2.546		1.331	1.591	1.461
16	.0575	.0695	.0635	2.342	2.656	2.832	12.96	1.463	1.763	1.613
15	.0650	.0770	.0710	2.6481		3.138		1.653	1.953	1.803
14	.0705	.0865	.0785	2.8725	3.281	3.525	16.01	1.784	2.204	1.994
13	.0854	.1014	.0934	3.4804		4.133		2.162	2.5823	2.372
12	.0994	.1174	.1084	4.0516	4.531	4.786	22.11	2.523	2.983	2.753
11	.1143	.1323	.1233	4.6505		5.394		2.902	3.362	3.132
10	.1292	.1472	.1382	5.2675	5.781	6.002	28.21	3.280	3.740	3.510
9	.1442	.1622	.1532	5.8795		6.614		3.661	4.121	3.891
8	.1591	.1771	.1681	6.4874	6.875	7.222		4.040	4.500	4.270

NOTES:

a. Based on ASTM A924/924M-94, Standard Specification for General Requirements for Sheet Steel, Metallic Coated by the Hot-Dip Pro-cess (formerly ASTMA525); and ASTMA653/A653M-94, Standard Specification for Sheet Steel, Zinc-Coat (Galvanized) or Zinc-Iron Alloy Coated (Galvanized) by the Hot-Dip Process.

b. Tolerances are valid for 48 in. and 60 in. wide coil and cut length stock - other dimensions apply to other sheet widths and to strip.

- c. The lock forming grade of steel will conform to ASTM A653 (formerly ASTM A527).
- d. The steel producing industry recommends that steel be ordered by decimal thickness only. Thickness and zinc coating class can be sten-ciled on the sheet. The gage designation is retained for residual familiarity reference only.

e. Minimum weight in this table is based on the following computation:

Minimum sheet thickness minus 0.001 in. of G60 coating times 40.8 lb. per sf. per in. plus 0.0369 lb./sf of zinc. G90 stock would be comparably calculated from:

(t - .00153 in.) 40.8 \div 0.05564 = minimum weight.

However, scale weight may run 2% (or more) greater than theoretical weight. Actual weight may be near 40.82 lb. per sf per in.

f. G60 coating, per ASTM A653 and ASTM A90, has 0.60 oz/sf (triple spot test) total for two sides. 0.59 oz/sf of zinc equals 0.001 in. 1 oz is 0.0017 in. and is 305.15 g/m².

G90 coating is 0.90 oz/sf (triple spot test), or 0.00153 in. Magnetic gage measurement of zinc coating may have 15% error.

- g. ASTM D2092, Practice for Preparation of Zinc-Coated Galvanized Steel Surfaces for Paint, includes mill phosphatizing.
- h. ASTM A755 is the Specification for Sheet Steel, Metallic Coated by the Hot-Dip Process and Prepainted by the Coating Process for Exteri¬or Building Products. Other information is available from the National Coal Coaters Association, Philadelphia, PA.
- i. Much chemical and atmospheric corrosion information is available from ASM International in Metals Park, Ohio and from NACE Interna-tional in Houston, TX.

A principle international standard is ISO 3575, Continuous Hot-Dip Process, Zinc-Coated Carbon Steel Sheet of Commercial, Lock Form-ing and Drawing Qualities.





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