

Zinc/Zinc-Alloy/Aluminum Continuous Sheet Coating Lines - North America

Colour Code →

Operating HD Lines

EG Lines

Under Construction

Publicly Announced

Idle Lines

TBA = To Be Announced

INCH-POUND VERSION

(Calculates sizes and tons from CoatingLinesSI sheet)

Country	Producer	Location	Line ID	Date Built	Latest Rebuild	Thickness (in)		Width (in)		Furnace Type(*)	Annual Hot-Dip Capacity - 1000's of short tons (k ST)						Total Company Hot-Dip - ST	Annual EG Capacity - k ST				Roll Coatings	Status	Annual Zinc Usage - ST	Comments	
						Min	Max	Min	Max		GI only	GA/GI	AZ	GF or ZM	Al, Al-Si	Combi.		Total	Zn	Zn-Ni	Zn-Fe					Total
Canada	ArcelorMittal	Hamilton, ON	No.3	1967	2005	0.008	0.043	24	52.0	H-DFRT	-	243	-	-	-	-	243	-	-	-	-	Chem. Treat.	OP	13,000	Gas fired GA furnace installed 1989	
Canada			No.4	1981	2016	0.010	0.091	24	60.5	H-DFRT	110	-	150	-	-	-	260	-	-	-	-	Acrylic, Chem. Treat.	OP	7,000	Dual pots, cleaner for FH AZ, CMI Blowstab APC; new cleaner; furnace upgrades; new ctg. Pot hardware; dual roll coater	
Canada			No.5	1999	2022	0.020	0.083	34	72.0	V-RT	364	-	-	-	176	-	540	-	-	-	-	-	OP	8,000	12/23/20 announced upgrade make 160KT Al-Si 2H22, stop GA; Originally "DSG", a	
Canada			No.6	2014	-	0.039	0.169	24	65.0	H-DFRT	-	717	-	-	-	-	717	-	-	-	-	Chem. Treat.	OP	9,000	Dofasco/Sollac 80/20 JV; exposed GI & GA; AHSS Began operating 2015 (GI, GA, HR HDG, AHSS)	
Canada			ArcelorMittal Windsor Windsor, ON	No.1	1993	2019	0.016	0.083	24	72.0	V-DFRT	-	485	-	-	-	-	485	-	-	-	-	Prephos., Chem. Treat.	OP	7,000	100% AM Dofasco 2013, formerly JV with JFE Steel; formerly DNN Galvanizing renamed DJ Galvanizing Corp. in '04; pre-melt pot '97
Canada			AM Coteau-du-Lac Coteau-du-Lac, PQ	No. 1	1991	1995	0.009	0.134	24	54.0	H-DFRT	-	254	-	-	-	-	254	-	-	-	-	-	OP	8,000	Formerly Sorevco; 1kg ctg wt golf ball finish; induction GA, Cr3 & Cr6 CT.
Canada	Materials Science Corp. (MSC)	Rexdale (Toronto), ON	No.1 EG	1968	-	0.0077	0.094	18	60.0	NA	-	-	-	-	-	-	45	-	-	45	-	OPE	1,000	Can coat UHSS YS up to 1517 MPa (220 ksi)		
Canada	Stelco	Hamilton Works, Hamilton, ON	3CGL	1968	1997	0.012	0.047	32	52.0	L-DFRT	200	-	-	-	-	200	-	-	-	-	-	OP	9,000	Selas vertical NOx furnace line; nitrogen wiping		
Canada			Z-Line	1991	2006	0.023	0.083	36	72.0	V-RT	-	518	-	-	-	-	518	-	-	-	-	OP	19,000	Orig. JV with Metal One 40%; at start a CGL-CAL Combo; world's biggest pot - 390 MT, first robot skim; nitrogen wiping		
Mexico	Galvasid (Grupo Ind. L.M.)	Apodaca, NL, Mexico	No.1	2005	2019	0.0134	0.108	24	60.0	V-DFRT	176	-	198	-	-	375	375	-	-	-	-	OP	6,200			
Mexico	Nucor-JFE Steel México (NJSM)	Silao, Guanajuato, Mexico	No.1	2020	-	0.016	0.102	31	72.8	V-RT	-	441	-	-	-	441	441	-	-	-	-	OP	12,100	GI & GA automotive quality; start 5 Mar. 2020		
Mexico	POSCO Mexico	Altamira, Mexico	CGL1	2009	-	0.016	0.079	31	74.8	V-RT	-	441	-	-	-	441	-	-	-	-	Pre-phos, CT	OP	17,000	Exposed GA, GI and AHSS; pre-melt pot		
Mexico			CGL2	2014	-	?	?	?	?	V-RT	-	551	-	-	-	-	551	-	-	-	Pre-phos, CT	OP	17,000	Start Jan. 2014; exposed GI & GA; AHSS 780; pre-melt pot		
Mexico	Ternium SRL de C.V.	San Nicholas de los Garza, NL, Mexico	H-GNo.1	1975	2004	0.008	0.075	24	51.0	H-DFRT	143	-	-	-	-	143	-	-	-	-	-	OP	5,500	In-line paint line added		
Mexico			H-GNo.2	1992	2000	0.010	0.106	24	51.0	H-DFRT	-	150	-	-	-	-	150	-	-	-	-	-	OP	5,300	Formerly HYSLA-GALVAK	
Mexico			H-GNo.3	1998	2000	0.008	0.047	27	50.0	H-DFRT	100	-	65	-	-	-	165	-	-	-	-	-	OP	2,000		
Mexico			IMSA	1996	-	0.008	0.075	24	50.0	H-DFRT	175	-	100	-	-	-	276	-	-	-	-	-	OP	6,000	Formerly IMSA Acero	
Mexico			No.2	1968	2003	0.010	0.079	24	50.0	-	-	160	-	-	-	-	160	-	-	-	-	-	OP	5,800	Formerly IMSA Acero	
Mexico			No.3	1981	2019	0.008	0.134	24	48.0	H-DFRT	150	-	99	-	-	-	249	-	-	-	-	-	OP	7,000		
Mexico			No.4	1996	-	0.011	0.035	24	50.0	V-DFRT	300	-	-	-	-	-	300	-	-	-	-	-	OP	11,000		
Mexico	Centro Industrial Ternium, Pesqueria, NL, Mexico	No. 1	2019	-	0.012	0.059	24	>65	V-RT	-	392	-	-	-	-	392	-	-	-	-	OP	17,000	Start-up Dec. 16, 2019, also with a new adjacent paint line			
Mexico	Tenigal SRL de CV, Pesqueria (Monterrey), NL	Tenigal 1	2013	-	0.0157	0.1024	27.6	72.8	V-RT	-	441	-	-	-	-	400	-	-	-	-	L-treatment	OP	15,000	Sept. 2013 start-up; 51% ternium, 49% nippon steel. Exposed & AHSS to 980; 2 pots (GI, GA), \$300M facility.		
Mexico			Tenigal 2	TBA	-	TBA	TBA	TBA	TBA	TBA	-	474	-	-	-	-	430	-	-	-	0	PA	10,900	\$300M investment publicly announced April 2016 for planned late 2019 start-up.		
Mexico	Grupo Villacero	Zincacero Apodaca, NL, Mexico	EG	1990	-	0.012	0.125	0.236	28.0	NA	-	-	-	-	-	-	53	-	-	53	-	OPE	0	Acquired in 1998 by Villacero from Fisacero		
Mexico			HDGL	1994	2020	0.010	0.060	24	49.0	H-RT	-	100	-	-	-	-	100	100	-	-	-	-	OP	3,000	SMS rebuild. SAE 1006, 1008 and 1010 and steel strip products with yield strengths between 210 and 560 MPa	
United States	AM/NS Calvert (JV of Arcelor Mittal Steel and Nippon Steel Corp.)	Calvert (Mobile), AL	HDGL1	2011	2015	0.020	0.091	36	73.6	V-RT	-	551	-	-	-	551	-	-	-	-	Pre-phos	OP	14,600	Exposed GI, GA; e-mag stabilizer; 2 main pots; side trim; Drever furnace w/oxidation control chamber		
United States			HDGL3	2012	2017	0.020	0.098	31	65.7	V-RT	-	551	-	-	-	-	551	-	-	-	-	Pre-phos, CT	OP	14,600	GI, GA; 2 main pots; Q&P GEN3	
United States			HDGL4	2011	2014	0.012	0.098	31	65.7	L-DFRT	243	-	-	-	331	-	573	-	-	-	-	CT, Acrylic	OP	7,700	GI, 55Al-Zn until stop 42013, Al-Si, CMI-EFCO; side trim; 3 main pots, 1 pre-melt; Al-Si announced Apr.'16	
United States	BlueScope Steel	Eval. "Eastern US" site to be announced	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	-	-	-	-	-	TBA	-	-	-	-	-	PA		Sept. 21, 2021 "Australian steelmaker BlueScope may build a new greenfield EAF mill with a steel painting and coating facility..." "East coast of the US."		
United States	Cleveland-Cliffs Inc.	Burns Harbor, Burns Harbor, IN	HDCL	1992	-	0.020	0.079	36	72.0	V-RT	-	606	-	-	-	-	606	-	-	-	Prephos, CT	OP	20,000	Induction GA; roll coater; entry & exit auto inspection		
United States			Cleveland Works, Cleveland, OH	HDGL	2006	2013	0.022	0.098	39	72.0	V-DFRT	-	717	-	-	-	-	717	-	-	-	CT	OP	25,000	Converted 1000 fpm LTV CAL to auto CGL; added GA '07; electromag. Stabilizer	
United States			Columbus, OH	HDGL	2000	2005	0.020	0.067	31	72.0	V-RT	-	441	-	-	-	-	441	-	-	-	Prephos	OP	22,000	L-S II EG line converted to CGL; 100% GA, 2 main pots + pre-melt; e-mag stabilizer	
United States			Dearborn Works, Dearborn, MI	HDGL	2011	2016	0.022	0.106	36	72.0	V-RT	-	500	-	-	-	-	500	-	-	-	Pre-phos	OP	12,000	Exposed GI, GA; NexMet™ Q&P GEN3 AHSS; Severstal NA up to 2014	
United States			Indiana Harbor-West, East Chicago, IN	No.2	1963	2016	0.015	0.189	24	72.0	H-DFRT	-	614	-	-	-	-	614	-	-	-	-	OP	32000	Gas fired GA; horizontal fce.; 577k MT cap.; 28.8 kT Zn	
United States			Indiana Harbor-East, East Chicago, IN	5 CGL	1968	2004	0.020	0.098	24	72.0	H-RT	-	0	-	-	-	-	0	-	-	-	-	ID	0	IDLE - Gas fired GA; hot bridge & new RT furnace 1997, ceramic tubes; formerly ISPAT-Inland; 376 kMT cap.	
United States			Middletown Works, Middletown, OH	No.2 EG	1991	1995	0.019	0.075		74.8	NA	-	-	-	-	-	-	-	454	-	-	454	-	OPE	11,000	Gravitel process, 21 plating cells
United States			No.3	1961	2002	0.021	0.138	32	74.0	H-RFRT	560	-	-	-	-	-	-	560	-	-	-	-	OP	24,000	Nitrogen wiping; not automotive exposed	
United States			No.4	1971	-	0.015	0.138	24	62.0	V-DFRT	-	-	-	-	470	-	-	470	-	-	-	-	OP	0	2 coreless pots; Aluminized type I, II on C-steel & 40x stainless	
United States			Rockport Works, Rockport, IN	CGL	1998	2003	0.018	0.079	41	80.0	V-RT	-	1,000	-	-	-	-	1,000	-	-	-	Prephos	OP	32,000	Max speed 750 fpm, coil wt. 70,000 lb.; Widest N.A. Ctg line	
United States	Cleveland-Cliffs Kote L.P., New Carlisle, IN	EG	1991	2004	0.015	0.091	24	72.0	V-RT	-	500	-	-	-	-	500	-	-	-	-	Prephos	OP	7,600	In-line side trimmer; exposed GA; all GA		
United States			1991	-	0.017	0.079	24	72.0	NA	-	-	-	-	-	-	-	500	-	-	500	-	OPE	7,000	24 Gravitel plating cells; Ni flash in 25th		
United States	Gregory Industries	Canton, OH	No.1	1980	2018	0.030	0.180	2	19.5	L-IND	-	145	-	-	-	145	145	-	-	-	-	OP	7,000	Cold heat to coat line with preheat induction furnace; thick ctgs, no cut edge		
United States	Canfield Metal Coating (CMC), Canfield, OH	EG	1957	2003	0.008	0.079	24	48.0	NA	-	-	-	-	-	-	-	66	-	-	66	-	OPE	1,000	Orig. Wheeling-Pittsburgh until 2001; acquired by New Star Metals Jul-2013		

Zinc/Zinc-Alloy/Aluminum Continuous Sheet Coating Lines - North America

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EG Lines

Under Construction

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Idle Lines

INCH-POUND VERSION

(Calculates sizes and tons from CoatingLinesSI sheet)

TBA = To Be Announced

Country	Producer	Location	Line ID	Date Built	Latest Rebuild	Thickness (in)		Width (in)		Furnace Type(*)	Annual Hot-Dip Capacity - 1000's of short tons (k ST)							Total Company Hot-Dip - ST	Annual EG Capacity - k ST				Roll Coatings	Status	Annual Zinc Usage - ST	Comments
						Min	Max	Min	Max		GI only	GA/GI	AZ	GF or ZM	Al, Al-Si	Combi.	Total		Zn	Zn-Ni	Zn-Fe	Total				
United States	United States Steel Corporation	Midwest Plant, Portage, IN	72" GACT	1970	2018	0.022	0.126	24	72.0	H&V-RT	-	500	-	-	-	-	500	5,637	-	-	-	-	Prephos, Chem. Treat.	OP	5,000	Induction GA, roll coater; GI & GA UHSS
			No.3 CL	1998	2006	0.009	0.035	24	49.0	H-DFRT	270	-	-	-	-	-	270		-	-	-	-	Acrylic	OP	5,000	Junkers coreless main & PM pots; 55Al-Zn until 2006
United States	United States Steel Corporation	Mon Valley Works, Irvin Plant, Dravosburg, PA	GAL1	1948	2004	0.036	0.169	22	52.0	L-DFRT	220	-	-	-	-	-	220	5,637	-	-	-	-	-	OP	6,000	HRS and CRS substrate; Selas NOx DFF line
			GAL2	1949	1998	0.014	0.063	24	48.0	V-DFRT	176	-	-	-	-	-	176		-	-	-	-	Acrylic	OP	3,000	Construction & appliance. Converted to dual line in 1997
United States	United States Steel Corporation	Mon Valley Works, Fairless Plant, Fairless Hills, PA	GAL3	1968	1999	0.015	0.079	24	64.0	H-RT	-	330	-	-	-	-	330	5,637	-	-	-	-	n/a	OP	6,000	Horizontal RT fce.; gas-fired GA; 1999 new Clecim TM, TL, CT, etc.
			"Mini-mill" location to be announced	TBA	-	-	TBA	TBA	TBA	TBA	-	-	-	-	-	-	TBA		-	-	-	-	-	PA	13000	Oct. 29, 2021 earnings call: \$3 Bn new flat rolled mini-mill, start construction 1H22; includes AHSS galv., HR galv., painting, slitting
United States	United States Steel Corporation	PRO-TEC Coating Company, Leipsic, OH	CGL1	1993	2007	0.023	0.102	36	74.0	V-RT	-	600	-	-	-	-	600	5,637	-	-	-	-	Prephos, CT	OP	10,000	US Steel/Kobe Steel JV; 2 roll coaters; UHSS & exposed GA; robot skim; LIBS pot chem. Sensor
			CGL2	1998	2006	0.015	0.067	24	67.0	V-RT	-	500	-	-	-	-	500		-	-	-	-	Prephos	OP	10,000	US Steel/Kobe Steel JV; roll coater, exposed GA & AHSS; robot skim
United States	United States Steel Corporation	USS UPI, Pittsburg, CA	CGL3	2020	-	0.024	0.106	34	65.7	TBA	-	500	-	-	-	-	500	5,637	-	-	-	-	Prephos, CT	OP	11,000	U. S. Steel/Kobe Steel JV; UHSS GEN3 GI, GA - start 2020 (AMM - Sep '17); 2 coating pots
			No. 2CC Line	1963	1997	0.0150	0.1265	24	55.5	V-RT	-	400	-	-	-	-	400		-	-	-	-	n/a	OP	12,000	Induction GA, RoHS CT; was 50-50 JV of U. S. Steel and POSCO since 1984 to 100% U. S. Steel Feb. 29, 2020
United States	Wheeling-Nippon Steel, Inc.	Follansbee, WV	No. 1 AGL	1988	-	0.014	0.106	24	61.0	H-DFRT	-	287	-	13	100	400	700	-	-	-	-	-	OP	6,000	ZAM™ added in 2013-2014; Makes Aluminized stainless; Gas-fired GA furnace; 100% Nisshin Steel Co., Ltd. since 2008	
			No. 2 CGL	1993	2000	0.008	0.047	24	50.0	H-DFRT	209	-	90	-	-	-		300	-	-	-	-	Acrylic	OP	9,000	Construction; Carosel reels; roll coater
United States	Worthington Industries	Delta, OH	No.1	1997	2008	0.025	0.250	32	62.0	L-DFRT	-	400	-	-	-	-	400	1,000	-	-	-	-	-	OP	15,000	CQ, culvert, guardrail markets (mostly HR substrate)
			No.1	1998	2019	0.018	0.075	28	62.0	V-DFRT	-	600	-	-	-	-	600		-	-	-	-	Prephos, CT, Acrylic	OP	9,000	Worthington 52%/Cleveland-Cliffs 48% JV; DFF lining change to fiber; RJC upgrade

Production Capacity:	Canada	Mexico	USA						Est. Total Zn, st:	
North American - Galvanize Only	674	1,045	5,961	7,680	27,349	← Total GI+GA/GI	1000's ST		951,369	
- Galvanneal/Galvanize Lines	2,216	2,678	15,278		20,170				CGLS:	923,039
- GALVALUME® & 55Al-Zn	150	463	1,721		2,334					
- GALFAN® ₅₀ ZM or ZAM™	0	0	66		66					
- Aluminized Types I, II	176	0	1,011		1,187					
- TOTAL Hot-Dip	3,215	4,184	24,027		31,460		1000's ST			
- EG Zn	45	53	1,627		1,725					
- EG Zn-Ni	0	0	187		187					
- EG Zn-Fe/other metallic plating	0	0	66		66					
- Total EG	45	53	1,881		1,979		1000's ST			
- Total Hot Dip & EG	3,261	4,237	25,907		33,438		1000's ST			

North American Line Summary

Type	Total Coating Lines				Operating				Being Built, Major Coating Upgrade				Combi. (Combination CGL & CAL or Pickle & CGL)				Idle				Publicly Announced			
	Canada	Mexico	USA	N.A. Total	Canada	Mexico	USA	N.A. Total	Canada	Mexico	USA	N.A. Total	Canada	Mexico	USA	N.A. Total	Canada	Mexico	USA	N.A. Total	Canada	Mexico	USA	N.A. Total
Hot Dip Lines - TOTAL (all coatings)	9	15	65	89	8	14	55	77	1	0	1	2	0	0	4	4	0	0	1	1	0	1	8	9
Hot Dip Galvanize Lines (GI but no GA)	3	6	28	37	3	6	22	31	0	0	0	0	0	0	1	1	0	0	0	0	0	0	6	6
HDG Lines with GI & GA capability	5	10	36	51	5	9	31	45	0	0	1	1	0	0	3	3	0	0	1	1	0	1	3	4
Lines with 55Al-Zn, GALVALUME® capability	1	4	13	18	1	4	9	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
Lines with Galfan capability	0	0	3	3	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lines with ZM, ZAM™ capability	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lines with Aluminizing capability	1	0	4	5	0	0	4	4	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
EG Lines	1	1	10	12	1	1	8	10	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0
Total EGLs + CGLs				101				87				2			4				3					9

Revised Mar 2022 by GalvInfo Center, a Program of the International Zinc Association, Gary Dallin, with input from AIST GTC members, including E. A. Silva

NOTES: - Production tonnes based on most recent data or recent estimates
- Zinc usage cited is mainly from the 2004 ILZSG World Directory; CG Lines

Abbreviations:

- GI = Galvanize
- GA = Galvanneal
- AZ = 55Al-Zn (GALVALUME®, ZINCALUME®, etc.)
- AL = Aluminized ASTM A463 type I (Al-non 9% Si (5 to 11%)), type II (Al, <=0.35%Si)
- ZAM™ = Zn-Al-Mg alloy coating
- GF = GALFAN®, 5Al-Zn
- CT = Passivation chemical treatment
- CAGL = (Combination) Continuous Annealing Galvanizing Line
- PGL = (Combination) Pickling-Galvanizing Line

Status Abbreviations	
BB	Being Built
BBE	Being Built EGL
ID	Idle Hot-Dip Line
IDE	Idle EGL
OP	Operating Hot-Dip Line
OPE	Operating EGL
PA	Publicly Announced Line
TBA	To Be Announced

(*) Furnace types

- V = Vertical
- H = Horizontal
- L = Vert & Horiz (may or may not be "L" shaped)
- NA = not applicable / not available
- *Furnace Suffix: DF = Direct Fired; RT = Radiant Tube; IND = Induction; HTC = Heat to Coat