



DAVIS-STANDARD®

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Pipe, Profile and Tubing



GEMINI® Conical (GC) Twin Screw Extruders

Overview

Davis-Standard's Gemini® series conical twin screw extruders provide pipe and profile processors with processing flexibility, low maintenance, and maximum productivity. This extruder line includes the GC-40 (40mm), GC-61 (61mm), and GC-65 (65mm) extruders, ACC designed with a compact machine configuration on a single base with alternate drive positioning and sizing. These extruders are engineered for custom window profiles, fence profiles, vertical blinds, capstock coextrusion and materials development, as well as quality control laboratory usage.

Features

- First American-designed conical twins built for demanding service, maximum productivity, and minimum maintenance
- Rugged, high performance gearbox with over twice the torque capacity and thrust bearing life of competitive models
- Low rpm screws with internal sealed water-cooling systems for processing RPVC powder formulations.
- High-efficiency Thermafin air-cooled barrel heaters and sealed, water-tempered screws for simple operation, low maintenance, and energy savings

GEMINI® Conical (GC) Twin Screw Extruders

Machine Design Specifications

Model	GC-40	GC-61	GC-65	
Screws	Diameter, Front/Rear	1.6/3.4 in. (40/86mm)	2.4/5.1 in. (61/130mm)	2.5/5.1 in. (65/165mm)
	Length	34.9 in. (886mm)	51.8 in. (1,316mm)	51.8 in. (1,316mm)
	Speed (Maximum RPM)	38	26	26
	Tempering	Sealed in, self-regulating water or circulating oil	Sealed in, self-regulating water or circulating oil	Sealed in, self-regulating water or circulating oil
	Drive	Flux Vector AC, 1750 rpm, HP (kW)	20 (15)	40 (30)
Ratio		17.56:1	30.5:1	30.5:1
Gearbox	Lubrication	Forced	Splash	Splash
	AGMA rating with 1.25 SF, HP (kW)	20 (15) @ 38 RPM	78 (58) @ 30 RPM	78 (58) @ 30 RPM
	Maximum Torque per Screw, ft.-lbs. (N-m)	1,400 (1,900)	6,125 (8,300)	6,125 (8,300)
	Thrust Bearing L-10 life at 6000 psi (414 bar)	68,000 hrs. @ 38 RPM	84,000 hrs. @ 30 RPM	58,700 hrs. @ 30 RPM
	Thrust Bearing Basic Dynamic Capacity	108,000 lbs. (480 KN)	194,200 lbs. (823 KN)	194,200 lbs. (823 KN)
	Thrust Bearing Maximum Continuous Load	32,000 lbs. (140 KN)	58,700 lbs. (261 KN)	58,700 lbs. (261 KN)
	Electrics	Total Connected Load, 460/3/60, A (kW)	72 (56)	129 (101)
Number of Barrel Zones		3	4	4
Total Barrel Heating Capacity (460 V), kW		14	32	32
Number of Die Zones, Including Flange/Adapter*		5	5	5
Total Die Heating Capacity (230 V) kW*		8.2	11.8	11.8
Vacuum Venting	Pump Rating and Capacity*	15 CFM @ 29 in. in Hg (25m3/h @ 982 mbar)	15 CFM @ 29 in. in Hg (25m3/h @ 982 mbar)	15 CFM @ 29 in. in Hg (25m3/h @ 982 mbar)
General	Approximate Weight	5,600 lbs. (2,540 kg)	9,500 lbs. (4,310 kg)	9,500 lbs. (4,310 kg)
	Approximate Output	50-180 lbs./hr (20-80 kg/hr)	100-400 lbs./hr (45-180 kg/hr)	120-600 lbs./hr (54-272 kg/hr)

Machine Design Dimensions

Model	GC-40	GC-61 & GC-65
A	52.8 in. (1,340mm)	57.3 in. (1,455mm)
B	69.5 in. (1,765mm)	95.5 in. (2,425mm)
H	70.0 in. (1,780mm)	78.1 in. (1,985mm)
L	84.9 in. (2,155mm)	113.0 in. (2,870mm)
W	40.0 in. (1,015mm)	58.2 in. (1,480mm)

