

PARALLEL TWIN SCREW EXTRUDERS



FEATURES & BENEFITS

4 Models Designed to Meet Throughput Rates from 250 to 5,000 lbs/hr

Ideal for Heat & Shear Sensitive Materials

Eisenbeiss Torque Master® 4-Shaft Gear Box

High Torque Capability for High Output Rates & Gentle Plastification

High Surface Area, Low Shear Screw Designs for Efficient Heat Transfer

Positive Displacement Pumping Characteristics

Narrow Residence Time Produces Optimal Melt Condition

Excellent Devolatilization Characteristics

High Head Pressure Capabilities

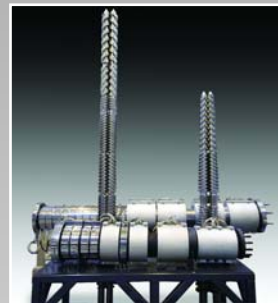
Advanced Wear Protection for Long Service Life

"Mosaic" Microprocessor Control

Standard 26:1 L/D Optional 33:1 L/D



"Mosaic" Microprocessor Control



Aftermarket Barrels & Screws



Torque Master® Gear Box



Extrusion Systems

TECHNOLOGY & SERVICE FIRST!

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PARALLEL TWIN SCREW EXTRUDER SPECIFICATIONS

		TP93-26		TP93-33		TP115-26		TP115-33		TP140-26		TP140-33		TP172-26		TP172-33	
		ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC
Screws	Number of Screws:	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Screw Dia., (in) (mm):	3.66	93	3.66	93	4.53	115	4.53	115	5.51	140	5.51	140	6.77	172	6.77	172
	L/D (From Downstream Edge of Feed Throat):	26:1	26:1	33:1	33:1	26:1	26:1	33:1	33:1	26:1	26:1	33:1	33:1	26:1	26:1	33:1	33:1
	Direction of Rotation:	Counter-Rotating		Counter-Rotating		Counter-Rotating		Counter-Rotating		Counter-Rotating		Counter-Rotating		Counter-Rotating		Counter-Rotating	
	Speed Range (rpm) (min-1):	0 to 40	0 to 40	0 to 40	0 to 40	0 to 30	0 to 30	0 to 30	0 to 30	0 to 26	0 to 26	0 to 26	0 to 26	0 to 20	0 to 20	0 to 20	0 to 20
	Available Torque per Screw Maximum (ft/lbs) (Nm):	6,171	8,367	6,171	8,367	12,342	16,734	12,342	16,734	18,988/23,735	25,745/32,180	18,988/23,735	25,745/32,180	37,027	50,202	37,027	50,202
Total Available Torque Maximum (ft/lbs) (Nm):	12,342	16,734	12,342	16,734	24,684	33,468	24,684	33,468	37,976/47,470	51,489/64,361	37,976/47,470	51,489/64,361	74,053	100,403	74,053	100,403	
Drive Train	Motor Rating (HP) (kW):	100	75	100	75	150	112	150	112	200/250	150/187	200/250	150/187	300	225	300	225
	Motor Base Speed (rpm) (min-1):	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750
	Total Gear Reduction:	43.75:1	43.75:1	43.75:1	43.75:1	58.3:1	58.3:1	58.3:1	58.3:1	67.3:1	67.3:1	67.3:1	67.3:1	88.0:1	88.0:1	88.0:1	88.0:1
	Continuous Maximum Load (1) (lbs) (kN):	73,368	326	73,368	326	89,639	399	89,639	399	165,803	738	165,803	738	103,412	460	103,412	460
	Short Term Maximum Load (1) (lbs) (kN):	102,715	457	102,715	457	112,048	498	112,048	498	232,124	1,033	232,124	1,033	136,009	605	136,009	605
	Dynamic Bearing Load Rating (lbs) (kN):	281,011	1,250	281,011	1,250	373,183	1,660	373,183	1,660	521,557	2,320	521,557	2,320	606,984	2,700	606,984	2,700
	Screw Thrust Measuring Device:	Electric		Electric		Electric		Electric		Electric		Electric		Electric		Electric	
Electrical	Extruder Drive:	460/3/60		460/3/60		460/3/60		460/3/60		460/3/60		460/3/60		460/3/60		460/3/60	
	Barrel Heat Zones:	460/3/60		460/3/60		460/3/60		460/3/60		460/3/60		460/3/60		460/3/60		460/3/60	
	Die Heat Zones:	230/3/60		230/3/60		230/3/60		230/3/60		230/3/60		230/3/60		230/3/60		230/3/60	
	Main Drive Motor (460V/3 Phase/60Hz) Amps:	234 (1)		260 (1)		198		198		268		268		362		362	
	Die Zones (230V/3 Phase/60Hz) Amps:	125		125		125		125		125/175		125/175		125/75		125/75	
	Isolation Transformer for AC Drive & Motor (3) (kVA):	118		118		175		175		220		220		330		330	
	Stepdown Transformer 460/230V, 3 Phase, 60Hz (kVA):	51		51		51		51		51/75		51/75		51/75		51/75	
Heating & Cooling	Number of Barrel Heating Zones:	5		6		5		6		5		6		7		8	
	Total Barrel Heating Capacity (kW):	59		79		93		120		142		179		197		235	
	Number of Barrel Cooling Zones:	3		4		3		4		3		4		5		6	
	Barrel Cooling Medium:	Water		Water		Water		Water		Water		Water		Water		Water	
	Number of Screw Temperature Control Zones:	1		1		1		1		1		1		1		1	
	Total Screw Heating Capacity (kW/gpm) (4):	9/6		9/6		12/10		12/10		12/10		12/10		21/20		21/20	
	Number of Die Zones Including Entry Adapter (5):	8		8		8		8		8		8		8		8	
Total Die Heating Capacity - Standard No. Die Zones (kW):	51		51		51		51		51/75		51/75		51/75		51/75		
Vacuum	Vacuum Pump (HP) (kW) (6):	3	2.25	3	2.25	5	3.75	5	3.75	5	3.75	5	3.75	10	7.5	10	7.5
	Type:	Liquid Ring		Liquid Ring		Liquid Ring		Liquid Ring		Liquid Ring		Liquid Ring		Liquid Ring		Liquid Ring	
	Dual Vent Capability:	No		Yes		No		Yes		No		Yes		No		Yes	
Air & Water	Minimum Water Pressure (psi) (bar):	50	3.5	50	3.5	50	3.5	50	3.5	50	3.5	50	3.5	50	3.5	50	3.5
	Maximum Water Temperature (deg. F) (deg. C):	68	20	68	20	68	20	68	20	68	20	68	20	68	20	68	20
	Average Water Consumption (gpm) (m³/h):	17	3.9	17	3.9	20	4.5	20	4.5	24	5.5	24	5.5	25	5.7	25	5.7
	Water Supply Connection Pipe Size (in):	0.5		0.5		0.5		0.5		0.5		0.5		0.5		0.5	
	Water Drain Connection Pipe Size (in):	0.5		0.5		0.5		0.5		0.5		0.5		0.5		0.5	
	Vacuum Pump Exhaust Pipe Size (in):	1.625		1.625		1.625		1.625		1.625		1.625		1.625		1.625	
Machine Dimensions Overall	Average Cooling Tower Load (tons) (kW):	6	21	6	21	6	21	6	21	9	32	9	32	12	43	12	43
	Total Length without Entry Adapter (in) (mm):	200.8	5,101	226.5	5,752	243.8	6,192	276	6,997	284.8	7,233	323.3	8,213	339.6	8,627	387.0	9,831
	Width (in) (mm):	61.4	1,560	61.4	1,560	70.4	1,788	70.4	1,788	83.2	2,113	83.2	2,113	92.4	2,346	92.4	2,346
	Height with Doser Feeder & Hopper (in) (mm):	104.5	2,655	104.5	2,655	106.3	2,700	106.3	2,700	114.2	2,900	114	2,900	158	4,014	158	4,014
	Extrusion Height Center Line (in) (mm):	43.3	1,100	43.3	1,100	43.3	1,100	43.3	1,100	43.3	1,100	43	1,100	47.2	1,200	47.2	1,200
Application Throughput Rates	Extruder Weight, Approximate (lbs) (kg):	14,500	6,590	15,500	7,045	19,000	8,635	20,750	9,435	26,000	11,820	28,000	12,730	55,000	25,000	57,500	26,135
	Rigid PVC Pipe (lbs/hr) (kg/hr):	to 1,200	to 545	to 1,200	to 545	to 2,200	to 1,000	to 2,200	to 1,000	to 3,600	to 1,636	to 3,600	to 1,636	to 5,000	to 2,273	to 5,000	to 2,273
	Rigid PVC Profile (lbs/hr) (kg/hr):	250-1,000	114-455	250-1,000	114-455	400-1,400	182-636	400-1,400	182-636	TBD	TBD	TBD	TBD	NA	NA	NA	NA
	Rigid PVC Siding (lbs/hr) (kg/hr):	to 1,000	to 455	to 1,000	to 455	to 1,800	to 818	to 1,800	to 818	to 3,000	to 1,364	to 3,000	to 1,364	to 4,000	to 1,818	to 4,000	to 1,818
	Rigid PVC Sheet-Solid (lbs/hr) (kg/hr):	to 1,000	to 455	to 1,000	to 455	to 1,800	to 818	to 1,800	to 818	to 3,000	to 1,364	to 3,000	to 1,364	to 4,000	to 1,818	to 4,000	to 1,818
	Rigid PVC Pelletizing (lbs/hr) (kg/hr):	to 1,200	to 545	to 1,200	to 545	to 2,200	to 1,000	to 2,200	to 1,000	to 3,600	to 1,636	to 3,600	to 1,636	to 5,000	to 2,273	to 5,000	to 2,273
	Flexible PVC Pelletizing (7 & 8) (lbs/hr) (kg/hr):	to 1,400	to 636	to 1,400	to 636	to 2,600	to 1,180	to 2,600	to 1,180	to 4,000	to 1,818	to 4,000	to 1,818	to 5,500	to 2,500	to 5,500	to 2,500
Wood (Natural) Fiber Plastic Composite (9) (lbs/hr) (kg/hr):	NA	NA	to 900	to 409	NA	NA	to 1,600	to 727	NA	NA	to 2,700	to 1,227	NA	NA	to 3,750	to 1,705	

Rigid PVC output rates are based on average formulations with a bulk density of 40 lbs/ft³ or 640 g/L. All throughput rates are dependent on formulation, tooling, and downstream. Laboratory trials should be conducted to determine specific throughput range for a given application.

- Notes: 1) Per screw. 2) Main drive motor load also includes barrel and screw oil zones at 460/3/60. 3) Isolation transformer highly recommended for protection of extruder drive. 4) On TP115 and larger, for WPC applications, a 21 kW/20 gpm Screw Oil Unit is used. 5) A maximum of 16 die zones is available with standard panel and control. 6) On TP115 and larger, for high fill pipe, vacuum pump should be upgraded one size larger. For WPC applications, vacuum pump should be 10 HP. 7) Crammer feeder required to meet rated throughput. 8) As Shore A Durometers increase, output rates drop accordingly. 9) WPC output rates are based on 60% wood-fiber 40-60 mesh + 40% HDPE.

All specifications reflect average values based on typical machine layouts. Actual figures will vary depending on final machine configuration. If you require more specific data, consult a Certified Installation Print for your particular machine. Performance specifications are based on theoretical data. Shipping weights reflect average historical values. Due to continual improvements, specifications are subject to change without notice.

