



Technical

CALCULATING HORSEPOWER - ZERO PRESSURE belt driven LIVE ROLLER ACCUMULATORS

ZERO PRESSURE LIVE ROLLER ACCUMULATOR

+ Product (1/2 of Total Live Load)

+ Roller Weight (see below)

+ Belt Weight (see below)

+ Drive Weight (250#)

= Subtotal

x .10

x 1.25 (25% Contingency Factor)

= Effective Belt Pull

x Speed of Conveyor

÷ 33,000 Horsepower Factor

÷ .95 Chain Reductions

÷ .85 GRE / Reducer Losses

= Horsepower

ROLLER WEIGHTS									
BF	7"	11"	13"	15"	17"	19"	21"	23"	25"
MODEL	ROLLER WEIGHTS (lbs.)								
196S	1.6	2.2	2.5	2.7	2.9	3.3	3.6	3.8	4.1
196G	1.6	2.3	2.6	2.8	3.0	3.4	3.7	3.9	4.3
192S	2.3	3.4	3.8	4.5	5.2	5.6	6.0	6.6	7.2
199S	2.6	4.0	4.5	5.3	6.1	6.6	7.1	7.8	8.5
254S	2.1	3.0	3.4	3.9	4.4	4.8	5.2	5.7	6.2
251S	4.2	5.6	6.4	7.1	7.8	8.5	9.2	9.9	10.7
297S	4.6	6.7	7.6	8.7	9.8	10.8	11.8	12.3	13.8
3509S	6.5	8.8	9.9	11.0	12.1	13.3	14.4	15.6	16.7

3530S	11.2	15.9	18.3	20.6	23.0	25.3	27.6	30.0	32.3
--------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------

ROLLER WEIGHTS									
BF	27"	31"	33"	35"	37"	39"	43"	47"	51"
MODEL	ROLLER WEIGHTS (lbs.)								
196S	4.4	4.9	5.2	5.5	5.8	6.1	6.7	7.3	7.8
196G	4.6	5.1	5.4	5.7	6.0	6.3	7.0	7.6	8.1
192S	7.7	8.8	9.4	9.9	10.6	11.0	12.1	13.2	14.3
199S	9.2	10.5	11.2	11.8	12.6	13.1	14.5	15.8	17.1
254S	6.6	7.5	8.4	9.3	9.8	10.2	11.3	12.3	13.3
251S	11.4	12.8	13.5	14.3	15.0	15.7	17.1	18.6	20.0
297S	13.8	16.9	17.9	19.0	20.0	21.0	23.0	25.1	27.2
3509S	17.8	20.1	21.2	22.3	23.5	24.6	26.9	29.1	31.4
3530S	34.7	39.4	41.8	44.1	46.4	48.8	53.5	58.2	62.8

BELT WEIGHTS									
BELT WIDTH	6"	12"	18"	24"	30"	36"	42"	48"	
BELT	BELT WEIGHTS (lbs.) PER FOOT OF BELTING (Not Conveyor)								
PVC-120 (CxFS)	.51	1.02	1.53	2.04	2.55	3.06	3.57	4.08	
PVC-120 (FSxFS)	.24	.48	.72	.96	1.20	1.44	1.68	1.92	
PVC RUFF TOP	.45	.90	1.35	1.80	2.25	2.70	3.15	3.60	