

DynaFlight® When the Going Gets Tough

No matter how demanding, DynaFlight delivers!

DynaFlight belting is designed to withstand the most demanding applications. With a single plane of carefully constructed and pre-tensioned steel cords DynaFlight conveys the toughest loads, over the longest distances and at the highest tensions.

Enhanced by today's computer technology, Fenner Dunlop brings a century of belt design and manufacturing experience to each DynaFlight belt it produces. It's no wonder that customers, worldwide, have such confidence in DynaFlight steel cord belting.

Markets & Applications:

- Power generation
- Metal & non-metals mining
- Overland conveyance such as coal, copper, limestone handling
- Slope belts in deep mines, open-pit mines
- Stackers/reclaimer & bulk terminal conveyors
- Ship unloaders, high capacity feeders, unit train loadouts

DynaFlight Specification Table - "Imperial" and "Metric"



Standard Carcass Styles ¹	Max Tension Rating ²		Elastic Modulus		Cord Pitch		Carcass Weight ⁵		Max. Cord Diameter ⁴	
	PIW	N/mm	lbs/in	mm	in	mm	lbs/in/ft	kg/m ²	in	mm
ST500	430	75	206000	36000	0.551	14.0	0.092	5.4	0.118	3.0
ST630	535	94	259000	46000	0.433	11.0	0.097	5.7	0.118	3.0
ST800	685	120	329000	58000	0.472	12.0	1.164	6.8	0.146	3.7
ST1000	860	151	411000	72000	0.472	12.0	1.127	6.6	0.165	4.2
ST1250	1070	187	514000	90000	0.551	14.0	1.584	9.3	0.193	4.9
ST1400	1195	209	576000	101000	0.551	14.0	1.644	9.6	0.197	5.0
ST1600	1370	240	658000	116000	0.591	15.0	1.944	11.4	0.220	5.6
ST1800	1535	269	740000	130000	0.531	13.5	2.052	12.0	0.220	5.6
ST2000	1720	301	822000	144000	0.472	12.0	2.196	12.8	0.220	5.6
ST2250	1920	336	925000	162000	0.433	11.0	2.316	13.6	0.220	5.6
ST2500	2140	375	1030000	180000	0.591	15.0	2.724	15.9	0.283	7.2
ST2800	2390	418	1151000	201000	0.531	13.5	2.784	16.3	0.283	7.2
ST3150	2690	471	1295000	227000	0.591	15.0	3.564	20.9	0.319	8.1
ST3500	2985	522	1439000	252000	0.591	15.0	3.912	22.9	0.339	8.6
ST4000	3440	602	1640000	287000	0.591	15.0	4.080	23.9	0.350	8.9
ST4500	3840	672	1850000	324000	0.630	16.0	4.644	27.2	0.382	9.7
ST5000	4280	749	2055000	360000	0.669	17.0	5.160	30.2	0.429	10.9
ST5400	4605	806	2220000	390000	0.669	17.0	5.568	32.6	0.445	11.3

Reasons to Count on DynaFlight

Tension capabilities

Using highly efficient and precision engineered steel cords, available belt operating ratings up to 6000 PIW (ST7000)

Product quality

Superior results stem from the finest materials, the utmost in manufacturing procedures & equipment, and a meticulous testing & quality control mindset

Product design

Enhanced by using individually pre-tensioned cords with alternating twists, cable positioning is both in-plane and uniform. Results in optimum belt tracking in the field

Adhesion & corrosion protection

With zinc plated open-weave steel cords, high pressure curing and quality compounding, maximum belt adhesion and cable corrosion protection is assured. Splice life is unequalled

DynaCord Breaker

Option available to enhance belt rip, impact, and penetration resistance

Minimal elongation

Take-up travel less than 0.25% of conveyor centers

Energy efficient

Low rolling resistant rubbers available

EagleEye®, rEscan®, and Rip Ranger

Highly sophisticated electronic monitoring, rip protection & X-ray options available

Unsurpassed performance

The finest in materials, product design, manufacturing and quality control all combine to assure a problem-free operating belt in service

Troughing/Empty ³ Minimum Belt Width						Minimum Pulley Diameter ⁶ % Rated Belt Tension						Splice Step Pattern
20° idlers		35° idlers		45° idlers		81 – 100		61 – 80		up to 60		
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
24	600	24	600	24	600	16	400	14	350	10	250	1-Step
24	600	24	600	24	600	16	400	14	350	10	250	1-Step
24	600	24	600	30	750	20	500	16	400	12	300	1-Step
24	600	24	600	30	750	22	550	18	450	14	350	1-Step
24	600	30	750	36	900	26	650	22	550	16	400	1-Step
24	600	30	750	36	900	26	650	22	550	16	400	1-Step
24	600	30	750	36	900	32	800	26	650	20	500	1-Step
30	750	30	750	36	900	32	800	26	650	20	500	1-Step
30	750	30	750	36	900	36	900	30	750	22	550	1-Step
30	750	30	750	36	900	36	900	30	750	22	550	2-Step
30	750	30	750	36	900	40	1000	32	800	24	600	2-Step
30	750	30	750	36	900	40	1000	32	800	24	600	2-Step
30	750	36	900	36	900	46	1150	38	950	28	700	2-Step
30	750	36	900	36	900	46	1150	38	950	28	700	2-Step
36	900	42	1050	42	1050	54	1350	44	1100	34	850	3-Step
36	900	42	1050	42	1050	54	1350	44	1100	34	850	3-Step
36	900	48	1200	48	1200	60	1500	48	1200	36	900	3-Step
36	900	48	1200	48	1200	60	1500	48	1200	36	900	3-Step



- 1 For additional DynaFlight constructions, including those of higher tension, please contact your FDA representative.
- 2 DynaFlight tension ratings reflect a minimum 6.7:1 safety factor.
- 3 Troughability values can be influenced by belt construction. When using Dynacord breaker, another 6" (150 mm) of belt width is required.
- 4 Add the appropriate cover gauge to the cord diameter value to obtain the approximate overall belt thickness.
- 5 Add the appropriate cover weight to this carcass weight to obtain the appropriate overall belt weight.
- 6 Pulleys must be straight-faced, engineered class (no crowns) and for several reasons, preferably lagged.