



**ISORAN GOLD**

# ISORAN GOLD

Megadyne Isoran Gold belts have been developed to give a more powerful alternative to RPP and Silver belts to compete against high performance transmission systems using chains and gears, that always have a disadvantage in terms of weight, noise, lubrication and maintenance costs.

As for Isoran Silver, Isoran Gold can be used to improve and easily upgrade already existing drives working with both Isoran RPP and Isoran Silver. Also here, we always suggest to check that every other transmission component can bare the increased transmitted power, especially if you are going to replace an Isoran RPP, because of the wide power upgrade. GOLD timing belts offer to designers:

- Increased performance compared to Isoran RPP and to Isoran Silver.
- The possibility to keep using the same RPP pulleys.

Isoran GOLD belts have two nylon plies on the tooth to:

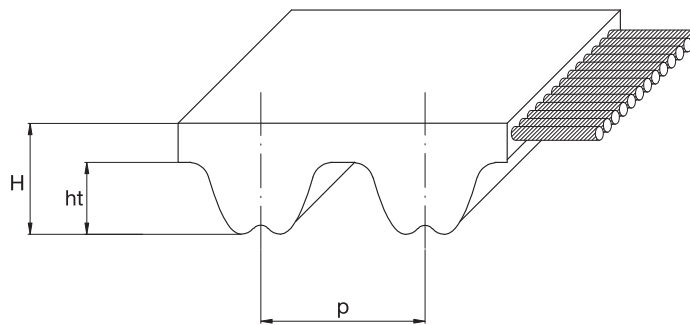
- Improve belt resistance to wearing;
- Reduce friction and noise levels.

Because of these features, replacing an Isoran RPP or an Isoran Silver with an Isoran Gold can allow:

- To reduce belt width thanks to the higher power rate; this allows also to reduce the required pulley width. They both lead to a significant transmission weight reduction.
- To reduce the pulley dimension thanks to the higher power rate; this leads to a lower belt linear speed and to the consequent noise reduction.

Gold belts have RPP profile, designed even to be interchangeable with existing deep groove profiles and run on pulleys according to ISO 13050.

Isoran Gold belts are antistatic according to BS 2050.



Pitch		GOLD8	GOLD14
Pitch length (mm)	p	8	14
Teeth height (mm)	ht	3,20	6,00
Belt height (mm)	H	5,40	9,70

Resistance to:	Standard belt resistance
Water	Medium
Acids / Alkalis	None
Solvents	None
Mineral oils	Low
Oils	Low
Greases	Medium
Fuels	None
Environmental agents	Medium

Other features	
Temperature range	Min: -25 °C
	Max: 80 °C
	Max peak: 100 °C
Hardness	90 +/-4 ShA
Antistatic	According to BS 2050

## STANDARD TOLERANCES

Width tolerances				
Belt width (mm)		Tolerance on belt width		
		Belt length (mm)		
More than	Up to	Up to 838	More than 838 up to 1676	More than 1676
-	11,1	+0,5 -0,8	+0,5 -0,8	-
11,1	38,1	±0,8	+0,8 -1,3	+0,8 -1,3
38,1	50,8	+0,8 -1,3	±1,3	+1,3 -1,5
50,8	76,2	+1,3 -1,5	±1,5	+1,5 -2,0
76,2	170,0	+1,3 -1,5	+1,3 -2,0	±2,0

Length tolerances			
Belt length [mm]		Tolerance [mm]	Centre distance tolerance [mm]
More than	Up to		
254	381	±0,45	±0,225
381	508	±0,50	±0,250
508	762	±0,60	±0,300
762	991	±0,65	±0,325
991	1,220	±0,75	±0,375
1,220	1,524	±0,80	±0,400
1,524	1,778	±0,85	±0,425
1,778	2,032	±0,90	±0,450
2,032	2,286	±0,95	±0,475
over 2,286		$\pm [0,95 + \left(\frac{L - 2286}{254} \cdot 0,03\right)]$	$\pm [0,475 + \left(\frac{L - 2286}{254} \cdot 0,015\right)]$

For specific application where you might require different tolerances, please contact our Application Department.

Thickness tolerances				
Pitch	Nominal belt thickness (mm)	Tolerance degree [mm]		
		Standard belt	Grade 2	Grade 1
<b>RPP8</b>	5,40	±0,60	±0,25	±0,15
<b>RPP14</b>	9,70	±0,60	±0,25	±0,15

STANDARD WIDTHS												
Pitch	Belt widths											
	6	9	15	20	25	30	40	50	55	85	115	170
<b>RPP3</b>	•	•	•									
<b>RPP5 / RPP5 DD</b>		•	•		•							
<b>RPP8 / RPP8 DD</b>				•		•		•		•		
<b>RPP14 / RPP14 DD</b>							•		•	•	•	•

## RANGE

GOLD8		GOLD14	
Code	Pitch length [mm]	Code	Pitch length [mm]
248 GLD8	248	966 GLD14	966
288 GLD8	288	994 GLD14	994
320 GLD8	320	1092 GLD14	1092
352 GLD8	352	1106 GLD14	1106
360 GLD8	360	1120 GLD14	1120
376 GLD8	376	1190 GLD14	1190
384 GLD8	384	1260 GLD14	1260
408 GLD8	408	1288 GLD14	1288
416 GLD8	416	1344 GLD14	1344
424 GLD8	424	1400 GLD14	1400
456 GLD8	456	1442 GLD14	1442
480 GLD8	480	1512 GLD14	1512
536 GLD8	536	1568 GLD14	1568
544 GLD8	544	1610 GLD14	1610
560 GLD8	560	1750 GLD14	1750
600 GLD8	600	1764 GLD14	1764
608 GLD8	608	1778 GLD14	1778
632 GLD8	632	1848 GLD14	1848
640 GLD8	640	1890 GLD14	1890
680 GLD8	680	1904 GLD14	1904
720 GLD8	720	1960 GLD14	1960
760 GLD8	760	2100 GLD14	2100
800 GLD8	800	2240 GLD14	2240
840 GLD8	840	2310 GLD14	2310
880 GLD8	880	2380 GLD14	2380
896 GLD8	896	2450 GLD14	2450
920 GLD8	920	2520 GLD14	2520
960 GLD8	960	2590 GLD14	2590
1000 GLD8	1000	2660 GLD14	2660
1040 GLD8	1040	2800 GLD14	2800
1080 GLD8	1080	2968 GLD14	2968
1120 GLD8	1120	3136 GLD14	3136
1160 GLD8	1160	3150 GLD14	3150
1200 GLD8	1200	3304 GLD14	3304
1224 GLD8	1224	3360 GLD14	3360
1280 GLD8	1280	3500 GLD14	3500
1352 GLD8	1352	3850 GLD14	3850
1424 GLD8	1424	3920 GLD14	3920
1440 GLD8	1440	4326 GLD14	4326
1464 GLD8	1464	4410 GLD14	4410
1600 GLD8	1600	4578 GLD14	4578
1680 GLD8	1680	4956 GLD14	4956
1760 GLD8	1760		
1792 GLD8	1792		
1800 GLD8	1800		
1904 GLD8	1904		
2000 GLD8	2000		
2200 GLD8	2200		
2240 GLD8	2240		
2272 GLD8	2272		
2400 GLD8	2400		
2520 GLD8	2520		
2600 GLD8	2600		
2800 GLD8	2800		
2840 GLD8	2840		
3048 GLD8	3048		
3200 GLD8	3200		
3280 GLD8	3280		
3600 GLD8	3600		
4000 GLD8	4000		
4400 GLD8	4400		

## BASIC PERFORMANCE IN Kw FOR GOLD8 - 20 mm WIDE (kW / 20 mm)

<b>d (mm)</b>	56,02	61,12	66,21	71,30	76,39	81,49	86,58	91,67	96,77	101,86	112,05	122,23	142,60	162,97	183,35	203,72
<b>z</b>	22	24	26	28	30	32	34	36	38	40	44	48	56	64	72	80
<b>rpm</b>																
10	0,10	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,18	0,19	0,21	0,22	0,26	0,30	0,34	0,37
20	0,18	0,20	0,22	0,24	0,25	0,27	0,29	0,31	0,33	0,35	0,39	0,43	0,51	0,60	0,67	0,75
30	0,26	0,28	0,31	0,34	0,36	0,39	0,42	0,45	0,48	0,50	0,56	0,62	0,74	0,85	0,98	1,10
50	0,40	0,45	0,49	0,53	0,57	0,62	0,66	0,70	0,75	0,79	0,88	0,97	1,16	1,34	1,53	1,73
70	0,54	0,60	0,66	0,71	0,77	0,83	0,89	0,95	1,01	1,07	1,19	1,31	1,56	1,81	2,07	2,33
100	0,75	0,82	0,90	0,98	1,06	1,14	1,22	1,30	1,38	1,46	1,63	1,79	2,13	2,48	2,83	3,19
200	1,38	1,52	1,66	1,81	1,95	2,10	2,25	2,40	2,55	2,70	3,00	3,31	3,94	4,58	5,23	5,89
300	1,97	2,18	2,38	2,59	2,80	3,01	3,22	3,43	3,65	3,86	4,30	4,74	5,64	6,56	7,48	8,43
400	2,54	2,81	3,07	3,34	3,61	3,88	4,15	4,43	4,70	4,98	5,55	6,12	7,28	8,46	9,65	10,86
500	3,10	3,42	3,74	4,07	4,39	4,72	5,06	5,39	5,73	6,07	6,76	7,45	8,86	10,30	11,75	13,23
600	3,64	4,02	4,40	4,78	5,16	5,55	5,94	6,34	6,73	7,13	7,94	8,76	10,41	12,10	13,81	15,54
700	4,17	4,60	5,04	5,47	5,92	6,36	6,81	7,26	7,72	8,18	9,10	10,03	11,93	13,86	15,81	17,80
800	4,70	5,18	5,67	6,16	6,66	7,16	7,66	8,17	8,68	9,20	10,24	11,29	13,42	15,59	17,79	20,01
900	5,21	5,75	6,29	6,84	7,39	7,94	8,50	9,07	9,64	10,21	11,36	12,52	14,89	17,29	19,72	22,19
1000	5,72	6,31	6,90	7,50	8,11	8,72	9,33	9,95	10,57	11,20	12,46	13,74	16,33	18,97	21,63	24,33
1100	6,23	6,86	7,51	8,16	8,82	9,48	10,15	10,82	11,50	12,18	13,56	14,94	17,76	20,62	23,51	26,44
1200	6,72	7,41	8,11	8,81	9,52	10,24	10,96	11,69	12,42	13,15	14,63	16,13	19,17	22,25	25,37	28,52
1300	7,22	7,96	8,70	9,46	10,22	10,99	11,76	12,54	13,32	14,11	15,70	17,31	20,56	23,86	27,20	30,57
1400	7,70	8,49	9,29	10,10	10,91	11,73	12,56	13,39	14,22	15,06	16,76	18,47	21,93	25,45	29,00	32,58
1500	8,19	9,03	9,88	10,73	11,60	12,47	13,34	14,22	15,11	16,00	17,80	19,62	23,29	27,02	30,78	34,57
1600	8,67	9,56	10,45	11,36	12,27	13,19	14,12	15,05	15,99	16,93	18,84	20,76	24,64	28,57	32,54	36,54
1700	9,14	10,08	11,03	11,98	12,95	13,92	14,89	15,88	16,86	17,86	19,86	21,88	25,97	30,11	34,28	38,47
1800	9,62	10,60	11,60	12,60	13,61	14,63	15,66	16,69	17,73	18,77	20,88	23,00	27,29	31,62	35,99	40,38
1900	10,08	11,12	12,16	13,21	14,27	15,34	16,42	17,50	18,59	19,68	21,88	24,11	28,59	33,12	37,68	42,26
2000	10,55	11,63	12,72	13,82	14,93	16,05	17,17	18,30	19,44	20,58	22,88	25,20	29,88	34,60	39,35	44,11
2500	12,84	14,15	15,47	16,81	18,15	19,50	20,86	22,23	23,60	24,98	27,75	30,53	36,14	41,76	47,37	52,96
3000	15,06	16,60	18,14	19,70	21,27	22,84	24,43	26,01	27,61	29,21	32,41	35,63	42,07	48,48	54,83	
3500	17,23	18,98	20,74	22,51	24,29	26,08	27,87	29,67	31,47	33,28	36,89	40,49	47,67	54,75		
4000	19,35	21,30	23,27	25,25	27,23	29,22	31,21	33,20	35,20	37,19	41,16	45,12	52,93			
4500	21,42	23,57	25,73	27,90	30,08	32,25	34,43	36,60	38,77	40,94	45,24	49,50				
5000	23,44	25,78	28,13	30,49	32,84	35,19	37,54	39,88	42,21	44,52	49,11					

# ISORAN GOLD14

BASIC PERFORMANCE IN kW FOR GOLD14 - 40 mm WIDE (kW / 40 mm)																	
d (mm)	124,78	129,23	133,69	142,6	151,52	160,43	169,34	178,25	196,08	213,9	231,73	249,55	267,38	285,21	303,03	320,86	356,51
z	28	29	30	32	34	36	38	40	44	48	52	56	60	64	68	72	80
rpm																	
10	0,75	0,78	0,81	0,86	0,91	0,97	1,02	1,07	1,18	1,29	1,40	1,50	1,61	1,72	1,82	1,93	2,15
20	1,44	1,50	1,56	1,67	1,79	1,91	2,03	2,15	2,36	2,58	2,79	3,01	3,22	3,43	3,65	3,86	4,29
30	2,07	2,16	2,24	2,41	2,58	2,75	2,92	3,10	3,45	3,80	4,16	4,51	4,83	5,15	5,47	5,80	6,44
50	3,28	3,42	3,55	3,82	4,09	4,36	4,63	4,90	5,46	6,02	6,59	7,16	7,74	8,32	8,91	9,50	10,70
70	4,44	4,62	4,80	5,17	5,53	5,90	6,27	6,64	7,39	8,15	8,92	9,69	10,48	11,27	12,06	12,86	14,48
100	6,13	6,37	6,62	7,12	7,62	8,13	8,64	9,15	10,19	11,24	12,29	13,36	14,44	15,53	16,62	17,73	19,96
200	11,43	11,89	12,36	13,29	14,22	15,17	16,12	17,08	19,01	20,96	22,94	24,93	26,94	28,97	31,01	33,07	37,23
300	16,47	17,13	17,80	19,13	20,48	21,84	23,21	24,59	27,37	30,19	33,03	35,90	38,79	41,71	44,65	47,61	53,58
400	21,33	22,19	23,05	24,78	26,53	28,29	30,07	31,85	35,45	39,09	42,77	46,48	50,22	53,99	57,79	61,62	69,34
500	26,07	27,12	28,17	30,29	32,42	34,58	36,74	38,92	43,31	47,76	52,25	56,77	61,34	65,94	70,57	75,23	84,64
600	30,71	31,94	33,18	35,68	38,19	40,72	43,27	45,84	51,01	56,24	61,51	66,84	72,20	77,61	83,05	88,52	99,56
700	35,27	36,69	38,11	40,97	43,86	46,76	49,69	52,63	58,56	64,55	70,60	76,70	82,84	89,03	95,25	101,51	114,12
800	39,76	41,36	42,96	46,18	49,43	52,70	55,99	59,31	65,98	72,72	79,52	86,38	93,28	100,23	107,21	114,23	128,37
900	44,19	45,96	47,74	51,32	54,93	58,56	62,21	65,89	73,29	80,76	88,30	95,89	103,54	111,22	118,94	126,70	142,30
1000	48,56	50,51	52,46	56,39	60,35	64,34	68,34	72,37	80,49	88,69	96,94	105,25	113,61	122,02	130,45	138,92	155,94
1100	52,88	55,00	57,13	61,40	65,71	70,04	74,40	78,78	87,60	96,49	105,45	114,46	123,52	132,62	141,75	150,90	169,27
1200	57,16	59,44	61,74	66,36	71,00	75,68	80,38	85,10	94,61	104,19	113,83	123,53	133,26	143,03	152,83	162,64	182,30
1300	61,39	63,84	66,31	71,26	76,24	81,25	86,28	91,34	101,52	111,78	122,09	132,45	142,84	153,26	163,70	174,14	195,02
1400	65,58	68,20	70,82	76,10	81,42	86,76	92,12	97,51	108,35	119,26	130,22	141,23	152,25	163,30	174,35	185,39	207,43
1500	69,73	72,51	75,30	80,90	86,54	92,21	97,90	103,61	115,10	126,64	138,24	149,86	161,50	173,15	184,78	196,40	219,52
1600	73,84	76,78	79,73	85,65	91,61	97,60	103,61	109,64	121,75	133,92	146,13	158,36	170,59	182,80	195,00	207,15	231,29
1700	77,91	81,01	84,12	90,36	96,63	102,93	109,25	115,59	128,32	141,10	153,90	166,71	179,50	192,27	204,98	217,64	
1800	81,95	85,20	88,47	95,02	101,60	108,20	114,83	121,48	134,81	148,17	161,55	174,91	188,25	201,53	214,74		
1900	85,95	89,36	92,78	99,63	106,52	113,42	120,35	127,29	141,21	155,14	169,07	182,97	196,82	210,59			
2000	89,92	93,48	97,05	104,20	111,38	118,59	125,81	133,04	147,52	162,01	176,47	190,88	205,21	219,44			
2500	109,27	113,54	117,82	126,39	134,98	143,56	152,14	160,71	177,78	194,73							
3000	127,78	132,71	137,64	147,49	157,31	167,10	176,85	186,54									
3500	145,46	150,98	156,48	167,44	178,33	183,13											
4000	162,27	168,30	174,30	186,19													
4500	178,17																