TUFF PLAST
PUNE PVT. LTD.

Total Solutions for
Pulleys and Gears
Also Manufacturing Gear Pumps



- Tuff Timer Pulleys®
- Planetary Gear Box
- Flexible Curved Teeth Coupling
- Gears
- New Product – Gear Pump

Company Profile

TUFF PLAST Pune Pvt. Ltd. are pioneers in moulded products in engineering plastics. Company is established in 1986 under the dynamic leadership of Mr. Y. S. Karve, an eminent plastic expert.

We are committed to quality & innovative products and have earned appreciation from across the industry and accolades/awards from reputed organisations.

Today it is grown into a full fledged company, having a well equipped toolroom & injection moulding machines, assembly shop, testing/checking facilities and has ever growing concern to fulfil the need of the clients.

The achievements are recognised by following awards :

"Overall development in plastic products" from "Association for the Promotion of Plastics" in 1993

"Appreciation award for planetary gear box" from "Indian Society of Plastics" in 1995

"Entrepreneur award with cash prize" from "E.L.F. Filament Foundation" in 1995

"Milind Sathe memory award" for the best innovative plastic product from "Indian Society of Plastics" in 1997

"Udyogshree award" from "Vyapar Udyog Abhinav Vyaspeeth" in 1998

Salient Features of Tuff Timer Pulleys®

- No lubrication required
- Positive non slip engagement
- Abrasion resistant
- Low drive weight
- Minimum heat built up
- Jerk and vibration free

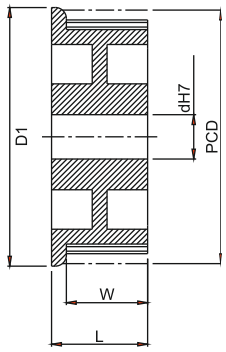
Why Tuff Timer Pulleys®?

- TUFF PLAST is manufacturing Timer Pulleys for more than 25 years from (Arnite) engineering plastic material
- "Arnite" has properties close to cast Iron
- Profile of the Pulleys is most accurate as it is done on CNC wirecut, improving life of the belt
- Embedded metal insert at centre ensures close tolerance on bores as per customer's requirement

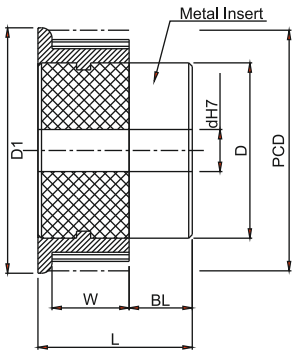
Plastic Pulley Advantages

- TUFF TIMER PULLEYS® are lightweight, offering excellent inertia control which in turn enhances energy savings. They feature good wear characteristics, inherent chemical resistance, material cost savings and have no oxidation issues.
- Arnite is a less than 1.58 times lighter (g/cc) than aluminium when comparing solid shapes. But, when it comes to properly designed timing pulleys, Arnite can be as much as five times lighter than aluminium, yet capable of achieving the same torque and speed requirements
- Majority regular end-users are machine manufacturers like textile winders, conveyors, SPM's manufacturers etc.

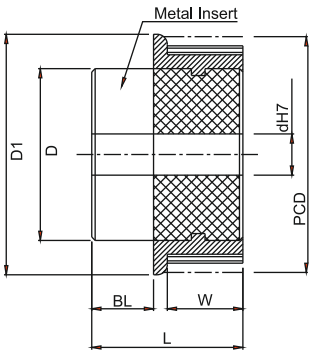
A Type



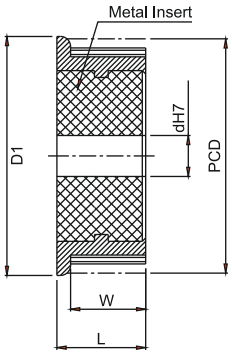
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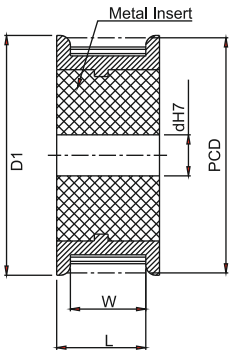
C Type



D Type



E Type



MXL(2.032 mm) PITCH TUFF TIMER PULLEYS

No of Teeth	Type	Pilot Bore Φ (d)	Max Bore Φ (dmax)	Metal Insert Φ (Dm)	Boss Φ (D)	Boss Length (BL)	Teeth Width (w)	Total Length (L)	OD	PCD	Flange Φ (D1)
15MXL	A	5*	5	-	-	-	12	14	9.19	9.70	12
15MXL	A	6*	6	-	-	-	12	14	9.19	9.70	12
16MXL	A	4	4	-	-	-	12	14	9.84	10.30	12
16MXL	A	5*	5	-	-	-	12	14	9.84	10.30	12
20MXL	A	6*	6	-	-	-	11.5	13	12.43	12.94	16
20MXL	C	5	5	9	16	6	11.5	20	12.43	12.94	16
22MXL	C	5	5	9	16	6	12	20	13.72	14.23	16
24MXL	C	4	6	10	14	7	12	21	15.02	15.50	19
25MXL	C	5	6	12	12	9	13	23	15.67	16.10	19
26MXL	C	5	6	12	19	7.5	13	22	16.31	16.80	20
30MXL	A	8	8	-	-	-	13	15	18.90	19.41	23
30MXL	D	5	8	12	-	-	13	15	18.90	19.41	23
32MXL	A	6.35*	6.35*	-	-	-	13	15	20.19	20.70	25
32MXL	D	4	6	16	-	-	13	15	20.19	20.70	25
32MXL	D	6	6	16	-	-	13	15	20.19	20.70	25
40MXL	A	6*	6	-	-	-	12	14	25.37	25.80	29
40MXL	B	6	15	20	20	8	12	22	25.37	25.80	29
45MXL	D	8	8	16	-	-	12	14	28.60	29.07	33
48MXL	A	6.35*	6.35*	-	-	-	13	15	30.54	31.05	37
50MXL	C	5	15	27	27	15	12	29	31.84	32.35	36
60MXL	A	6	6	-	-	-	12	14	38.30	38.82	39
60MXL	C	8	15	32	24	8.5	17	27	38.30	38.82	39
72MXL	B	5	15	25	25	10	13	26	46.07	46.50	49
120MXL	C	8	12	23	25	9.3	13.5	25	77.11	77.54	80
144MXL	A	25	30	-	-	-	13	17	92.64	93.10	96
144MXL	B	6	18	30	34	17	13	34	92.64	93.10	96

MXL PITCH DOUBLE PULLEYS

30MXL	D	6	6	12	-	-	11	29.30	18.90	19.41	22
45MXL	D	8	8	16	-	-	12	29	28.60	29.07	33

XL (5.08 mm) TUFF TIMER PULLEYS

No of Teeth	Type	Pilot Bore Φ (d)	Max Bore Φ (dmax)	Metal Insert Φ (Dm)	Boss Φ (D)	Boss Length (BL)	Teeth Width (w)	Total Length (L)	OD	PCD	Flange Φ (D1)
10XL	A	6*	6	-	16	6	14	22	15.67	16.10	19
10XL	C/E	5	8	10	16	6	14/12.5	22	15.67	16.10	19
11XL	C	5	8	11	18	6	13.5	21	17.28	17.78	21
12XL	A	8*	8	-	20	6	12	22	18.89	19.40	25
12XL	C	5	10	12.5	18	6.5	12	22	18.89	19.40	25
13XL	C	5	10	16	20	7	12	23	20.51	21.02	26
14XL	C	6	10	16	20	10	13	27	22.13	22.63	25
15XL	B	5	10	14	20	8	12	22	23.75	24.20	28
15XL	C	5	10	14	20	15	12	31	23.75	24.20	28
16XL	B	5	10	16	20	8	12	22	25.36	25.88	30
16XL	C/E	5	15	18	21	12	14	30	25.36	25.88	31
17XL	C	5	10	16	20	8	12	24	26.98	27.49	32
18XL	B	6	14	22	24	10	14	26	28.60	29.10	33
18XL	C	5	18	22	25	11	14	30	28.60	29.10	35
19XL	B	5	15	25	25	8	13	23	30.21	30.70	36
20XL	A	15**	15	-	-	-	12	14	31.83	32.34	37
20XL	B	5	20	25	25	10	12	24	31.83	32.34	37
20XL	C	5	20	25	25	7	12.5	24	31.83	32.34	37
21XL	B	5	20	25	25	10	16	27	33.45	33.90	37
21XL	C	5	20	25	25	5	16	23	33.45	33.90	37
22XL	A	16	26	-	-	-	12	14	35.06	35.57	40
22XL	B	5	20	28	25	14	12	28	35.06	35.57	40
22XL	C	5	20	28	25	14	12	28	35.06	35.57	40
23XL	A	15**	15	-	-	-	13	15	36.68	37.20	41
23XL	B	6	15	22	25	10	14	26	36.68	37.20	41
23XL	C	6	15	30	30	8	14	24	36.68	37.20	41
24XL	A	15**	15	-	-	-	13	15	38.30	38.81	43
24XL	B	5	15	25	25	7	14	23	38.30	38.81	43
24XL	B	5	15	30	30	8	13	23	38.30	38.81	44
24XL	C	6	15	25	25	9	13	25.5	38.30	38.81	44
25XL	A	15**	15	-	-	-	12	14	39.92	40.40	43
25XL	B	5	20	32	32	15	12	29	39.92	40.40	43
26XL	A	24*	-	-	-	-	12	16	41.53	42.04	45
26XL	B	5	15	30	30	13.5	11.5	27	41.53	42.04	45
26XL	B	5	15	25	35	13	12	29	41.53	42.04	45
26XL	D	5	15	25	25	-	12	14	41.53	42.04	45
27XL	A	15**	15	-	-	-	14	16	43.16	43.70	46
27XL	B	5	15	22	25	11	14	27	43.16	43.70	46
28XL	A	6*	-	-	-	-	12	14	44.77	45.28	48
28XL	B/C	5	15	25	25	14	12	28	44.77	45.28	48
29XL	A	15	15	-	-	-	14	16	46.38	46.89	55
29XL	C	5	15	25	25	12	14	28	46.38	46.89	55
30XL	A	15**	15	-	-	-	14	16	48.00	48.50	51
30XL	B	5	20	25	25	15	14	31	48.00	48.50	51
30XL	C	8	30	40	40	15	14	31	48.00	48.50	51
31XL	A	15**	15	-	-	-	12	14	49.62	50.10	53
31XL	B	5	15	25	25	10	12	24	49.62	50.10	53
32XL	A	15**	15	-	-	-	12	14	51.23	51.74	55
32XL	B	6	15	25	25	10	12	24	51.23	51.74	55
32XL	B	6	15	25	25	11	14	28	51.23	51.74	55
32XL	B	6	30	40	40	12	14	28	51.23	51.74	55
33XL	A	15**	15	-	-	-	14	16	52.85	53.40	57
33XL	B	6	15	25	25	12	14	28	52.85	53.40	57
34XL	A	15**	15	-	-	-	14	16	54.47	54.98	58
34XL	B	5	20	30	30	15	14	31	54.47	54.98	58
35XL	A	15**	15	-	-	-	12	14	56.09	56.60	61
35XL	B	6	15	28	28	15	12	29	56.09	56.60	61

XL (5.08 mm) TUFF TIMER PULLEYS

No of Teeth	Type	Pilot Bore Φ (d)	Max Bore Φ (dmax)	Metal Insert Φ (Dm)	Boss Φ (D)	Boss Length (BL)	Teeth Width (w)	Total Length (L)	OD	PCD	Flange Φ (D1)
35XL	B	10	20	30	30	10	26	38	56.09	56.60	61
36XL	A	15**	15	-	-	-	14	16	57.70	58.21	64
36XL	B	6	15	25	25	10	12	24	57.70	58.21	63
36XL	C	5	15	25	25	13	14	30	57.70	58.21	64
36XL	C	8	40	50	50	15	14	31	57.70	58.21	65
37XL	A	15**	15	-	-	-	12	14	59.32	59.83	62
37XL	B	5	15	20	25	11	12	25	59.32	59.83	62
38XL	A	15**	15	-	-	-	12.5	14	60.94	61.45	63
38XL	B	5	15	25	25	10	12.5	25	60.94	61.45	63
39XL	B	10	15	38	26.5	13	12.5	35	62.55	63.00	67
39XL	D	10	25	38	-	-	12.5	14	62.55	63.00	67
40XL	A	15**	15	-	-	-	14	16	64.17	64.70	68
40XL	B	5	15	30	30	15	14	31	64.17	64.70	68
41XL	A	15**	15	-	-	-	12	14	65.79	66.30	70
41XL	B	6	15	28	28	20	12	34	65.79	66.30	70
42XL	A	15**	15	-	-	-	14	16	67.40	67.90	72
42XL	B	6	20	30	28	13	14	28	67.40	67.90	72
43XL	A	15**	15	-	-	-	13	15	69.02	69.50	74
43XL	B	6	15	25	25	10	13	25	69.02	59.50	74
44XL	A	15**	15	-	-	-	12	14	70.64	71.15	75
44XL	B	8	20	30	35	14	13	29	70.64	71.15	75
45XL	A	15**	15	-	-	-	13	15	72.26	72.77	76
45XL	B	6	15	25	25	14	14	30	72.26	72.77	76
46XL	A	15**	15	-	-	-	12	14	73.87	74.30	75
46XL	B	5	15	25	25	18	12	32	73.87	74.30	75
48XL	A	15**	15	-	-	-	13	15	77.11	77.62	82
48XL	B	6	22	30	30	8	12	22	77.11	77.62	82
49XL	A	15**	15	-	-	-	13.5	15	78.72	79.20	83
50XL	A	15**	15	-	-	-	11.5	13	80.34	80.80	86
50XL	B	6	22	35	35	16	11	30	80.34	80.80	87
50XL	B	6	22	30	30	9	12	23	80.34	80.80	85
51XL	A	15**	15	-	-	-	13	15	81.96	82.50	87
53XL	A	15**	15	-	-	-	13	15	85.19	85.70	87
53XL	B	6	15	25	25	10	13	25	85.19	85.70	87
54XL	A	15**	15	-	-	-	12.5	14	86.81	87.30	89
54XL	B	6	15	25	25	12	12.5	27	86.81	87.30	89
55XL	A	15	15	-	-	-	13	15	88.43	88.90	93
55XL	B	8	15	25	25	7	13	22	88.43	88.90	93
57XL	A	15**	15	-	-	-	13	15	91.66	92.17	96
57XL	B	6	15	28	28	8/22	13	23/37	91.66	92.17	96
58XL	A	15**	15	-	-	-	13	15	93.28	93.80	97
58XL	B	5	15	28	28	13	13	28	93.28	93.80	97
60XL	A	15**	15	-	-	-	12.5	14	96.51	97.00	100
60XL	B	6	15	26	26	9	12.5	26	96.51	97.00	100
61XL	A	15**	15	-	-	-	11	13	98.13	98.64	101
61XL	B	8	15	25	25	12	11	26	98.13	98.64	101
64XL	A	15**	15	-	-	-	12	14	102.98	103.50	108
64XL	A	20**	20	-	-	-	12	14	102.98	103.50	108
64XL	B	8	15	25	30	11	12	25	102.98	103.50	108
66XL	A	15**	15	-	-	-	14	16	106.21	106.72	111
66XL	A	20**	20	-	-	-	14	16	106.21	106.72	111
66XL	B	8	20	30	30	10	14	27	106.21	106.72	111
70XL	B	10	25	35	35	10	11	24	112.68	113.20	118
72XL	B	8	22	35	35	10	13	26	115.92	116.43	121
82XL	B	6	15	26	30	10	12	25	132.09	132.60	137

8M HTD TUFF TIMER PULLEYS

No of Teeth	Type	Pilot Bore Φ (d)	Max Bore Φ (dmax)	Metal Insert Φ (Dm)	Boss Φ (D)	Boss Length (BL)	Teeth Width (w)	Total Length (L)	OD	PCD	Flange Φ (D1)
20 8M	B	10	28	40	40	10	26.5	41	49.58	50.95	58
24 8M	B	10	38	50	50	10	26.5	41	59.75	61.14	68
26 8M	D	15	38	50	-	-	25	30	64.84	66.21	74
40 8M	D	10	38	50	-	-	26	30	100.49	101.90	111
40 8M	C	10	38	50	50	12	26	42	100.49	101.90	111
48 8M	D	10	38	50	-	-	26.5	30.5	120.86	122.20	132
56 8M	D	20	38	50	-	-	25	28	141.23	142.60	149
64 8M	D	10	48	60	-	-	24	26	161.60	162.97	167
68 8M	D	10	48	60	-	-	24	26	171.79	173.16	178

S8M HTD TUFF TIMER PULLEYS

20 S8M	B	10	28	40	40	10	26.5	41	49.58	50.95	58
24 S8M	B	10	38	50	50	10	26.5	41	59.75	61.14	68

L PITCH (9.525 mm) TUFF TIMER PULLEYS

No of Teeth	Type	Pilot Bore Φ (d)	Max Bore Φ (dmax)	Metal Insert Φ (Dm)	Boss Φ (D)	Boss Length (BL)	Teeth Width (w)	Total Length (L)	OD	PCD	Flange Φ (D1)
10L	C	6	16	21	25	10	28	40	29.56	30.30	36
10L	D	6	-	24	-	-	28	30	29.56	30.30	36
11L	D	8	12	22.5	22.5	-	28	30	32.59	33.30	38
12L	B/E	8	20	28	28	12	30	44	35.62	36.38	41
12L	D	8	20	28	-	-	30	32	35.62	36.38	41
13L	B	8	20	32	32	17	28	47	38.65	39.40	42
13L	D	8	20	32	-	-	28	30	38.65	39.40	42
14L	B	8	20	32	33	16	28	46	41.69	42.40	48
14L	D	8	20	32	-	-	28	30	41.69	42.40	48
15L	B	8	25	35	34	12	28	43	44.72	45.48	51
15L	D	8	25	35	-	-	28	30	44.72	45.48	51
16L	B	10	32	40	38	10	29	41	47.75	48.50	52
16L	C	10	32	40	38	10	29	41	47.75	48.50	52
16L	D	10	32	40	-	-	29	31	47.75	48.50	52
17L	B	8	30	42	42.5	12	28	42	50.78	51.50	57
17L	D	8	30	42	-	-	28	30	50.78	51.50	57
18L	B	8	30	42	42.5	12	28	43	53.81	54.50	60
18L	D	8	30	42	-	-	28	30	53.81	54.50	60
19L	B	8	35	47	45	18	28	51	56.85	57.61	67
19L	D	8	35	47	-	-	28	34	56.85	57.61	67
20L	B	10	38	50	40	10	28	41	59.88	60.64	65
20L	D	10	38	50	-	-	28	31	59.88	60.64	65
21L	C	10	38	55	50	10	28	40	62.91	63.66	68
21L	D	10	38	55	-	11	24.5	26.5	62.91	63.66	68
22L	B	10	20	30	40	12	28	42	65.94	66.70	71
24L	B/C	10	35	45	45	12	28	42	72.01	72.77	78
24L	D	10	35	45	45	-	28	30	72.01	72.77	78
25L	B	10	35	45	45	12	28	42	75.04	75.80	81
25L	D	10	30	40	-	-	27	29	75.04	75.80	81
28L	B	10	40	50	50	12	28	42	84.13	84.89	90
32L	D	10	40	50	-	-	27	30	96.26	97.02	104
40L	B	10	38	50	50	10	30	43	120.52	121.20	126
40L	D	10	38	50	-	-	30	33	120.52	121.20	126
48L	B	10	38	50	50	10	30	43	144.76	145.53	149
48L	D	10	38	50	-	-	30	33	144.76	145.53	149
60L	D	15	38	50	-	-	27	30	181.15	181.90	188

T10 PITCH TUFF TIMER PULLEYS

No of Teeth	Type	Pilot Bore Φ (d)	Max Bore Φ (dmax)	Metal Insert Φ (Dm)	Boss Φ (D)	Boss Length (BL)	Teeth Width (w)	Total Length (L)	OD	PCD	Flange Φ (D1)
12 T10	B/E	8	20	28	28	10/8	29	45	36.35	38.20	43
12 T10	B/E	8	20	28	28	12/10	54	69	36.35	38.20	43
20 T10	A	25	25	-	35	10	31	45	61.80	63.69	67
20 T10	A	25	25	-	-	-	31	35	61.80	63.69	67
24 T10	B	10	32	38	42	19	29	51	74.55	76.43	80

3M HTD PULLEYS

No of Teeth	Type	Pilot Bore Φ (d)	Max Bore Φ (dmax)	Metal Insert Φ (Dm)	Boss Φ (D)	Boss Length (BL)	Teeth Width (w)	Total Length (L)	OD	PCD	Flange Φ (D1)
15 3M	A	6.35	6.35	-	16	7	11.5	20	13.56	14.32	16
15 3M	E	5	5	9	9	7	7	17	13.56	14.32	16
18 3M	A	6.4/8	8	-	-	-	9	11	16.43	17.18	19
18 3M	A	8	8	-	-	-	16.5	18	16.43	17.18	19
18 3M	C	5	5	-	18	8	16.5	26	16.43	17.18	19
19 3M	C	10	16	26	26	8	14	22	17.38	18.14	26
20 3M	C	10	15	25	25	8	14	22	18.34	19.1	25
21 3M	C	10	10	18	18	6	11	21	19.29	20.05	25
27 3M	A	8*	8	-	-	-	9	11	25.02	25.78	28
27 3M	B	5	12	16	16	8	16.5	26	25.02	25.78	28
29 3M	C	10	24	34	34	8	14	22	26.93	27.69	34
30 3M	C	15/17	25	35	35	8	20	28	27.89	28.65	35
32 3M	A	8	8	-	-	-	9	11	29.80	30.55	33
35 3M	B	15/17	20	30.5	30.5	8	14.3	24	32.66	33.42	40
40 3M	B	17	22	32	32	8	20	30	37.44	38.2	44
50 3M	B	15	25	35	35	8	12/14	22	46.99	47.75	55
54 3M	B	5	20	25	25	8	16.5	26	50.81	51.57	54

5M HTD TUFF TIMER PULLEYS

No of Teeth	Type	Pilot Bore Φ (d)	Max Bore Φ (dmax)	Metal Insert Φ (Dm)	Boss Φ (D)	Boss Length (BL)	Teeth Width (w)	Total Length (L)	OD	PCD	Flange Φ (D1)
18 5M	B	6	12	20	20	9	17	28	27.50	28.66	33
36 5M	B	8	26	38	38	9	16	29	56.20	57.3	62
36 5M	D	8	26	45	-	-	16	18	56.20	57.3	62
48 5M	B	8	20	30	30	10	16	29	75.30	76.40	80
60 5M	B	8	20	30	30	10	16	29	94.40	95.50	99
72 5M	B	10	35	50	50	10	21	33	113.50	114.6	119
72 5M	D	10	35	50	-	-	21	33	113.50	114.6	119
90 5M	B	12	25	34	34	9	17	29	142.1	143.3	147

2.5 M HTD PULLEYS

No of Teeth	Type	Pilot Bore Φ (d)	Max Bore Φ (dmax)	Metal Insert Φ (Dm)	Boss Φ (D)	Boss Length (BL)	Teeth Width (w)	Total Length (L)	OD	PCD	Flange Φ (D1)
18	C	6.35	6.35	9	17	6.5	12	20	13.80	14.33	18

T5 PITCH - TUFF TIMER PULLEYS

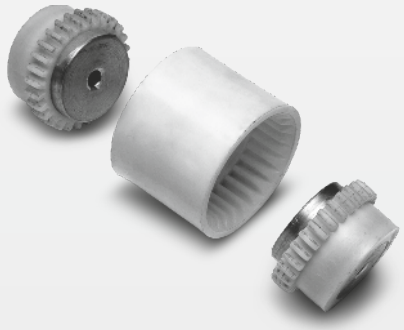
No of Teeth	Type	Pilot Bore Φ (d)	Max Bore Φ (dmax)	Metal Insert Φ (Dm)	Boss Φ (D)	Boss Length (BL)	Teeth Width (w)	Total Length (L)	OD	PCD	Flange Φ (D1)
12T5	C	6	6	10.5	21	7	14	23	18.25	19.10	23
13T5	A	8	6	-	-	-	14.5	16	19.85	20.70	25
15T5	A	10	8	-	-	-	18	20	23.05	23.87	28
16T5	D	10	10	16	-	-	12	14	24.60	25.47	30
18T5	B	6	6	22	20	6	10.5	19	27.80	28.64	32
19T5	A	10	10	-	-	-	18	20	29.40	30.23	35
20T5	B	6	13	20	20	5.5	15.2	23	31	31.80	35
20T5	D	6	13	20	-	-	15.2	23	31	31.80	35
24T5	D	8	13	24	-	-	14	16	37.35	38.20	42
30T5	D	6	15	25	-	-	13	15	46.90	47.70	52
32T5	D	6	15	25	-	-	14	16	50.10	50.90	56
33T5	D	6	15	25	-	-	13	15	51.70	52.50	57
40T5	B	6	15	28	28	8	15	25	62.85	63.66	68
63T5	D	10	75	85	-	-	10	12	99.45	100.31	104

* Inner Dia With A/F 0.8D

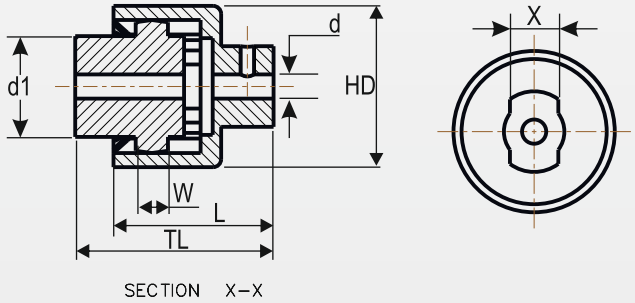
FLEXIBLE GEARED COUPLING

Coupling	Housing Φ - HD	Housing Length - L	Pilot Bore Φ (d)	Max Bore (dmax)	Metal Insert Φ (D1)	Total Length TL	Teeth Width (W)	No of Teeth (Gear)
M - 14	40	50	6	19	25	27	8	20
M - 19	52	41	6	25	32	26	8	28
M - 28	67.5	46.5	10	32	45	83	16.5	34

FLEXIBLE GEARED COUPLING



ENCODER - FLEXIBLE COUPLING (Miniature)



Maintenance free

Compensates Axial, Radial, Angular shaft misalignment

Ex-stock available with pilot bore

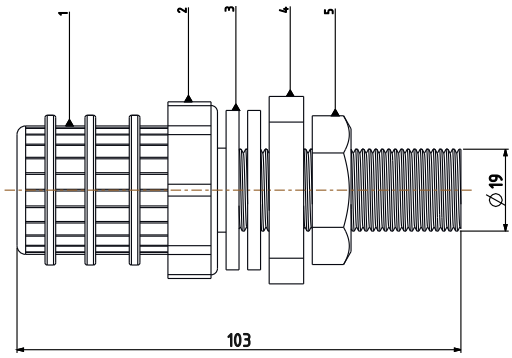
Can be bored to suit your requirement

Application range from 25^0 C to 80^0 C

ENCODER - FLEXIBLE COUPLING (Miniature)

Coupling	Housing Φ - HD	Housing Length - L	Pilot Bore Φ (d)	Max Bore (dmax)	Metal Insert Φ (D1)	Total Length TL	Teeth Width (W)	Shank Width (X)
Small	40	40	6	19	25	49	8	12

BUTTON STRAINER



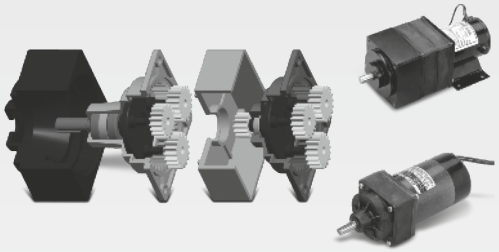
Sr. No.	Item	Qty.
1	Filter	1
2	Filter Cap	1
3	Nitrile Rubber Washer	2
4	Flat Nut	1
5	Hex Nut	1

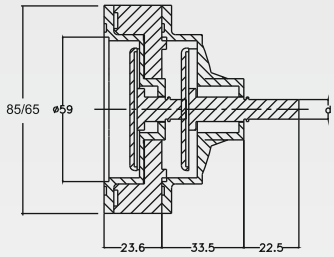
PLANETARY GEAR BOX

Type	Reduction Ratio	Module	Max. Torque (kgcm)	Outer Φ mm	Output Shaft Φ (D)	Mounting holes
SM 1	4 : 1	0.5	5	45	6 MM A/F 0.8 D	3 Φ – 3 Holes on 37.5 mm PCD

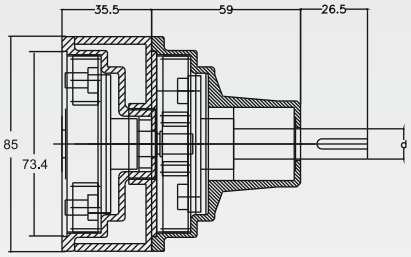


PLANETARY GEAR BOX





20 kgcm GEAR BOX



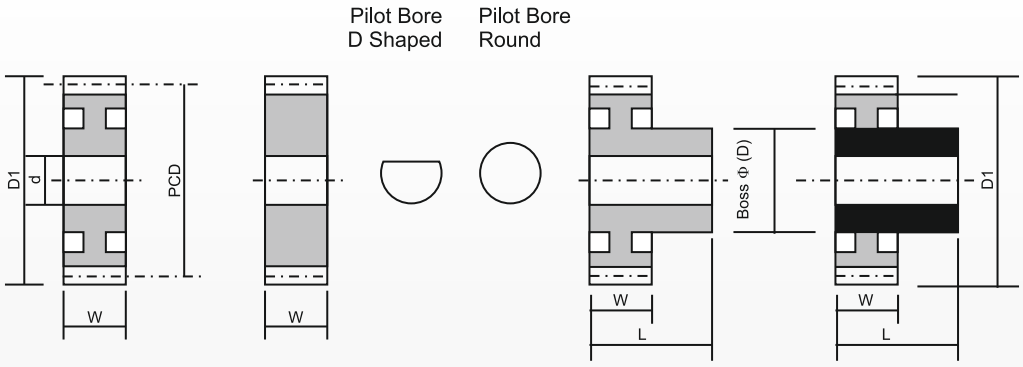
50 kgcm GEAR BOX

Type	Reduction Ratio	Torque Kgcm	Output Shaft Dia (d)	Mounting Spigot Dia	Mounting Holes
TGB 1.1/3	3:1	20	10*	59.2	70 x 70 52 x 52
TGB 1.0 / 4	4:1	20	10*	59.2	70 X 70 52 X 52
TGB 1.0 / 5	5.5 : 1	20	10*	59.2	70 X 70 52 X 52
TGB 1.4 / 3	3 : 1	50	12**	73.4	70 X 70
TGB 1.4 / 4	4 : 1	50	12**	73.4	70 X 70
TGB 1.4 / 5	5 : 1	50	12**	73.4	70 X 70

STANDARD RACKS

Module	No of Teeth	Length	Thickness	Teeth Width
0.5	84	127	4.1	19
1	42	127	4.1	19





STANDARD GEARS AVAILABLE EX-STOCK

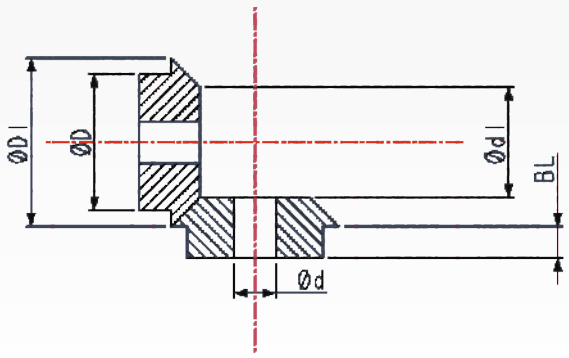
Module	No of Teeth	PCD	OD	Insert Dia	Bore Dia (d)	Boss Dia (D)	Boss Length (BL)	Teeth Width (W)
0.5	15	7.5	8.5	-	2	-	-	3
0.5	20	10	11	-	6	-	-	7
0.5	42	21	22	-	4.2	8	9	2.6
0.5	48	24	25	-	8	-	-	3
0.5	54	27	28	-	6	16	3.5	3.5
0.5	58	29	30	-	6	22	4	8
1	10	10	12	-	5*	-	-	15
1	12	12	14	-	6*	-	-	6
1	15	15	17	-	6	13	11	5
1	15	15	17	-	4*/8*	13	11	5
1	18	18	20	-	6*	-	-	6
1	20	20	22	-	8	12.5	10	5
1	21	21	23	-	6	-	-	6
1	22	22	24	-	6*/9.6*	-	-	6.5
1	23	23	25	-	8*	18	12	10
1	28	28	30	-	6*	12	6	8
1	30	30	32	-	14	-	-	7.5
1	30	30	32	-	6*	-	-	7.5
1	30	30	32	-	8*	-	-	7.5
1	32	32	34	-	10	16	8	7
1	32	32	34	-	8*	16	8	7
1	33	33	35	-	6*	17.5	5	6
1	35	35	37	-	6*/8*	17.5	8	5.2
1	35	35	37	-	8	17.5	8	5.2
1	36	36	38	-	21	-	-	10
1	39	39	41	-	8*	-	-	10.5
1	40	40	42	-	8*/10*	13.5	15	5
1	45	45	47	-	12*	16	7.5	9
1	46	46	48	-	6*	16	3.5	5
1	46	46	48	-	10	16	3.5	5
1	60	60	62	-	6*	16	10	8
1	60	60	62	-	10*/12*	16	10	8
1	64	64	66	25	5	25	9	13
1	67	67	69	35	12	35	12.5	12
1.1	12	13.2	15.4	-	6	-	-	6
1.1	24	26.4	28.6	-	5	15	6	6

STANDARD GEARS AVAILABLE EX-STOCK

Module	No of Teeth	PCD	OD	Insert Dia	Bore Dia (d)	Boss Dia (D)	Boss Length (BL)	Teeth Width (W)
1.25	12	15	17.5	-	6*	-	-	20
1.25	12	15	17.5	-	6.35*	-	-	20
1.25	12	15	17.5	-	9*	-	-	20
1.25	16	20	22.5	16	9	16	12	14
1.25	20	25	27.5	16	9	16	12	9
1.25	24	30	32.5	22	6	22	10	12
1.25	30	37.5	40	30	8	30	17	10
1.25	34	42.5	45	18	6	18	8.5	10
1.25	36	45	47.5	25	9	30	10	10
1.25	40	50	52.5	25	6	25	13.5	12
1.25	48	60	62.5	28	6	28	10	10
1.25	60	75	77.5	28	6	28	19.5	10
1.4	12	16.8	19.6	-	6	-	-	11
1.4	18	25.2	28	-	6	11.5	-	10
1.4	24	33.6	36.4	-	8	13.5	-	10
1.5	13	19.5	22.5	-	9.5	13	3.2	8
1.5	20	30	33	-	12	17	3	10
1.5	25	37.5	40.5	-	28*	-	-	9.82
2	10	20	24	-	10*	23.5	14.8	12
2	15	30	34	-	11.7	20	8.6	14
2	19	38	42	-	10*	15	-	6
2	30	60	64	-	8	-	-	14
2	30	60	24	26	6	2.5	14	14
2	38	76	80	35	10	43	7.5	14
2	60	120	124	50	10	58.6	18	15
2.5	28	70	75	-	20	30	10	15
10DP	30	75	80	32	16	38	24	13
10DP	60	150	155	32	16	38	24	13

BEVEL GEARS 45^0 ANGLE-AVAILABLE EX-STOCK

Module	No of Teeth	Pitch Dia (d1)	OD (D1)	Insert Dia	Bore Dia (d)	Boss Dia (D)	Boss Length (BL)
1	18	13	18.50	-	8*	14	10
1	30	20	30.60	-	6*	26	6.5
1	30	20	30.60	-	8*	26	6.5
1	36	21.90	36.20	-	12*	24	10
1	54	40.40	53.80	-	16*	31	10
1.25	23	19.60	29.60	-	6*	17.3	7.5
1.25	23	19.60	29.60	-	8*	17.3	7.5
1.25	23	19.60	29.60	-	10*	17.3	7.5
2	14	14.35	27.70	17	6	17	20
3	14	24.50	45.55	24	10	32	11



Experience the quality of **TUFF PLAST** from its rugged and dependable **"GEAR PUMP"**

Material

- Body / Shaft / Bearings from high quality S.S. material (SS316) to give required strength and stability
- Gears made from excellent quality of Engineering Plastic (Material) for safe usage in Food & Chemical Industry
- Mechanical Oil seals protect from any possible leakage.

Chemical Resistance

- Resistance to acids / specific chemicals (Request to specify use of material for our technical team to guide)

Power Requirement:

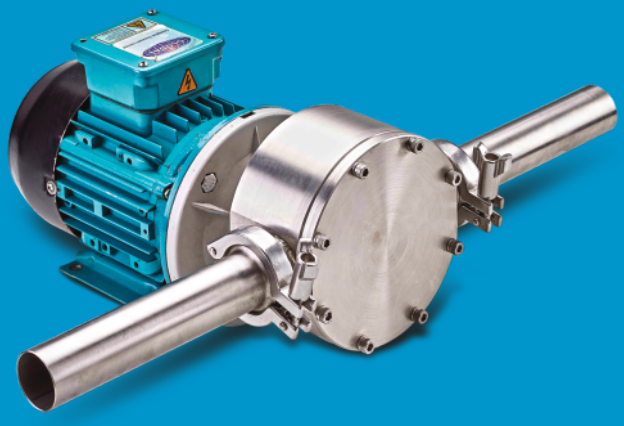
- 3 Phase / 0.5 HP Motor / 1440 rpm

Capacity

- Available in: 40 LPM and 50 LPM - Suitable for 2 Bar Pressure

Caution

- Suggested to avoid dry run of the Pump



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