

TIMKEN

Where You Turn



Established in 1899, The Timken Company is a leading provider of friction management and power transmission solutions to diverse markets, including aerospace, automotive, construction, distribution, mining, rail, truck and wind energy. Our 17,000 associates located in 27 countries/territories throughout Africa, Asia Pacific, Australia, Europe, Latin America and North America are committed to helping customers around the world succeed. We keep the world turning with innovative products and services, enabling our customers' machinery to perform more efficiently and reliably. Timken is Where You Turn® for better performance.



TIMKEN

Where You Turn

Bearings • Steel •
Power Transmission Systems •
Precision Components • Seals •
Lubrication • Industrial Services •
Remanufacture and Repair
www.timken.com

Timken® and Where You Turn®
are registered trademarks of
The Timken Company.

© 2010 The Timken Company
Printed in U.S.A.
1M 09-10: 29 Order No. 10360

 **PRECISION**
Cylindrical Roller Bearings | Screw Drives

Load Management To Meet Your Machine Tool Screw Drive Needs

Machine tool screw drives face some of the toughest conditions. Rapid acceleration. High speeds. Significant stiffness requirements. But you needn't worry. Timken® precision cylindrical roller bearings are up to the challenge for your tables on vertical and horizontal milling centers.

Consider all that Timken® precision cylindrical roller bearings offer for screw drives:

- Greater consistency through superior static and dynamic stiffness.
- Superior running accuracy and lower operating temperature through P4 precision class.
- Easy bearing selection due to direct competitor interchange.
- Comprehensive offering, including extended shaft and flange mounting design.

With Timken on your side, you can optimize speed, precision and efficiency in your machine tool equipment. Timken precision cylindrical roller bearings for screw drives feature a combination of axial cylindrical rollers and radial needle rollers. This unique configuration helps manage loads from multiple directions during high-speed operations. Several designs make it easy to accommodate varying screw-drive designs.

We offer five screw-drive bearing types in bore sizes ranging from 15mm to 90mm (0.59in to 3.54in), including:

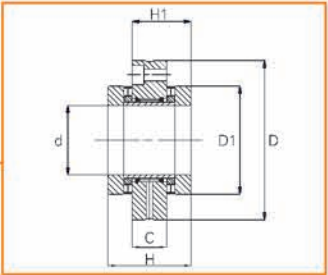
- TARN: Designed for standard screw drives.
- TARN-L: Extended shaft washer allows additional sealing.
- TARN-F: Relieved outer ring allows additional sealing and flanges designed to accommodate mounting.
- TARN-FL: Extended shaft waster and relieved outer ring for additional sealing and flanges for mounting.
- TARN-T: Accommodated mounting for flanges.



In addition, we offer a full line of friction management solutions for machine tools. From bearings, seals and lubrication to reliability, engineering and maintenance support, Timken is your one-stop shop for help in getting the most out of your operations.

Ready to learn how we can help you maximize equipment performance? Contact your Timken sales representative or visit us online at www.Timken.com.

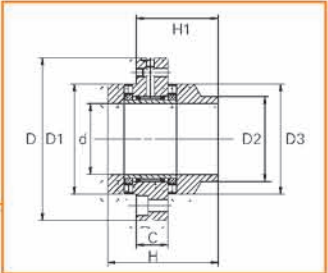
TARN-T Flanges designed to accommodate mounting



							Load Ratings According to ISO				
							Axial		Radial		Axial Stiffness
Part Number	d	D	H	H1	C	D1	Dynamic	Static	Dynamic	Static	
	mm.	mm.	mm.	mm.	mm.	mm.	kN	kN	kN	kN	kN/μm
	in	in	in	in	in	in	10 ³ lbf	10 ³ lbf	10 ³ lbf	10 ³ lbf	10 ⁶ lbf/ft
TARN150T	15	60	46	31	16	35	25	41.2	8.4	11.1	1.3
	0.59	2.36	1.81	1.22	0.63	1.38	5.62	9.26	1.89	2.50	89.05
TARN2068T	20	68	46	31	16	42	32.7	64.8	9.6	14.6	2
	0.79	2.68	1.81	1.22	0.63	1.65	7.35	14.57	2.16	3.28	137
TARN2080T	20	80	60	40	20	52	58.8	105.9	14.6	22.3	2.2
	0.79	3.15	2.36	1.57	0.79	2.05	13.22	23.81	3.28	5.01	150.7
TARN2575T	25	75	50	35	20	47	34.8	75.2	13.4	24.5	1.3
	0.98	2.95	1.97	1.38	0.79	1.85	7.82	16.91	3.01	5.51	89.05
TARN2590T	25	90	60	40	20	62	74.5	160.2	16.2	27.2	4.7
	0.98	3.54	2.36	1.57	0.79	2.44	16.75	36.01	3.64	6.11	321.95
TARN3080T	30	80	50	35	20	53.4	35.3	81.1	16.2	27.2	2.4
	1.18	3.15	1.97	1.38	0.79	2.10	7.94	18.23	3.64	6.11	164.4
TARN30105T	30	105	66	43	20	68	90.4	181.5	17.6	32.5	3.1
	1.18	4.13	2.60	1.69	0.79	2.68	20.32	40.80	3.96	7.31	212.35
TARN3590T	35	90	54	37	20	60.4	50.7	117.5	17.6	32.5	2.8
	1.38	3.54	2.13	1.46	0.79	2.38	11.40	26.42	3.96	7.31	191.8
TARN35110T	35	110	66	43	20	73	98.7	212.7	18.4	35.1	3.6
	1.38	4.33	2.60	1.69	0.79	2.87	22.19	47.82	4.14	7.89	246.6
TARN40100T	40	100	54	37	20	65.4	55.7	138.7	18.4	35.1	3.3
	1.57	3.94	2.13	1.46	0.79	2.57	12.52	31.18	4.14	7.89	226.05
TARN40115T	40	115	75	50	25	78	101.8	229.9	25.5	55	3.8
	1.57	4.53	2.95	1.97	0.98	3.07	22.89	51.68	5.73	12.36	260.3
TARN45105T	45	105	60	42.5	25	70.4	56.6	146.7	25.5	55	3.5
	1.77	4.13	2.36	1.67	0.98	2.77	12.72	32.98	5.73	12.36	239.75
TARN45130T	45	130	82	53.5	25	90	151.3	344	31.8	54.2	4.7
	1.77	5.12	3.23	2.11	0.98	3.54	34.01	77.33	7.15	12.18	321.95
TARN50115T	50	115	60	42.5	25	78.4	84.3	255.9	31.8	66.3	4.4
	1.97	4.53	2.36	1.67	0.98	3.09	18.95	57.53	7.15	14.90	301.4
TARN50140T	50	140	82	53.5	25	95	163.1	391.2	35.6	64.5	5.3
	1.97	5.51	3.23	2.11	0.98	3.74	36.67	87.95	8.00	14.50	363.05
TARN55145T	55	145	82	53.5	25	100	160.8	394.8	26.4	55.1	5.2
	2.17	5.71	3.23	2.11	0.98	3.94	36.15	88.75	5.93	12.39	356.2
TARN60150T	60	150	82	53.5	25	105	171.6	442.6	36.1	84.7	5.8
	2.36	5.91	3.23	2.11	0.98	4.13	38.58	99.50	8.12	19.04	397.3
TARN65155T	65	155	82	53.5	25	110	175.9	468	54	104	6.1
	2.56	6.10	3.23	2.11	0.98	4.33	39.54	105.21	12.14	23.38	417.85
TARN70160T	70	160	82	53.5	25	115	180.1	493.4	65	131	6.3
	2.76	6.30	3.23	2.11	0.98	4.53	40.49	110.92	14.61	29.45	431.55
TARN75185T	75	185	100	65	30	135	257.9	678.6	79.5	147	6.7
	2.95	7.28	3.94	2.56	1.18	5.31	57.98	152.56	17.87	33.05	458.95
TARN90210T	90	210	110	72.5	35	160	309.8	876.1	103	220	8.3
	3.54	8.27	4.33	2.85	1.38	6.30	69.65	196.96	23.16	49.46	568.55

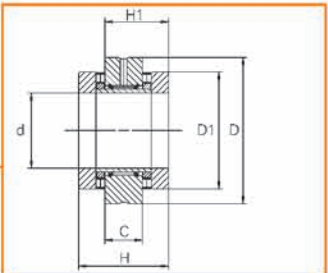
TARF-FL

Flanges for mounting; extended shaft washer and relieved outer ring for additional sealing



TARN

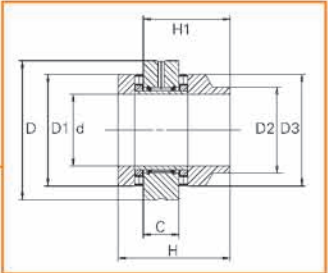
Designed for standard screw drives



									Load Ratings According to ISO				
									Axial		Dynamic		
Part Number	d	D	H	H1	C	D1	D2	D3	Dynamic	Static	Dynamic	Static	Axial Stiffness
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	kN	kN	kN	kN	kN/μm
	in	in	in	in	in	in	in	in	10^3 lbf	10^3 lbf	10^3 lbf	10^3 lbf	10^6 lbf/ft
TARF1560FL	15	60	53	39	14	35	24	34.8	25	41.2	8.4	11.1	1.3
	0.59	2.36	2.09	1.54	0.55	1.38	0.94	1.37	5.62	9.26	1.89	2.50	89.05
TARF2068FL	20	68	60	43	14	42	30	40	32.7	64.8	9.6	14.6	2
	0.79	2.68	2.36	1.69	0.55	1.65	1.18	1.57	7.35	14.57	2.16	3.28	137
TARF2080FL	20	80	75	53	18	52	40	50	58.8	105.9	14.6	22.3	2.2
	0.79	3.15	2.95	2.09	0.71	2.05	1.57	1.97	13.22	23.81	3.28	5.01	150.7
TARF2575FL	25	75	65	48	18	47	36	45	34.8	75.2	13.4	24.5	1.3
	0.98	2.95	2.56	1.89	0.71	1.85	1.42	1.77	7.82	16.91	3.01	5.51	89.05
TARF2590FL	25	90	75	53	18	62	48	60	74.5	160.2	16.2	27.2	4.7
	0.98	3.54	2.95	2.09	0.71	2.44	1.89	2.36	16.75	36.01	3.64	6.11	321.95
TARF3080FL	30	80	65	48	18	52	40	50	35.3	81.1	16.2	27.2	2.4
	1.18	3.15	2.56	1.89	0.71	2.05	1.57	1.97	7.94	18.23	3.64	6.11	164.4
TARF30105FL	30	105	82	57	18	68	52	66	90.4	181.5	17.6	32.5	3.1
	1.18	4.13	3.23	2.24	0.71	2.68	2.05	2.60	20.32	40.80	3.96	7.31	212.35
TARF3590FL	35	90	70	51	18	60	45	58	50.7	117.5	17.6	32.5	2.8
	1.38	3.54	2.76	2.01	0.71	2.36	1.77	2.28	11.40	26.42	3.96	7.31	191.8
TARF35110FL	35	110	82	57	18	73	60	73	98.7	212.7	18.4	35.1	3.6
	1.38	4.33	3.23	2.24	0.71	2.87	2.36	2.87	22.19	47.82	4.14	7.89	246.6
TARF40100FL	40	100	70	51	18	65	50	63	55.7	138.7	18.4	35.1	3.3
	1.57	3.94	2.76	2.01	0.71	2.56	1.97	2.48	12.52	31.18	4.14	7.89	226.05
TARF40115FL	40	115	93	65.5	22.5	78	60	78	101.8	229.9	25.5	55	3.8
	1.57	4.53	3.66	2.58	0.89	3.07	2.36	3.07	22.89	51.68	5.73	12.36	260.3
TARF45105FL	45	105	75	55	22.5	70	56	68	56.6	146.7	25.5	55	3.5
	1.77	4.13	2.95	2.17	0.89	2.76	2.20	2.68	12.72	32.98	5.73	12.36	239.75
TARF45130FL	45	130	103	72	22.5	90	70	88	151.3	344	31.8	54.2	4.7
	1.77	5.12	4.06	2.83	0.89	3.54	2.76	3.46	34.01	77.33	7.15	12.18	321.95
TARF50115FL	50	115	78	58	22.5	78	60	78	84.3	255.9	31.8	66.3	4.4
	1.97	4.53	3.07	2.28	0.89	3.07	2.36	3.07	18.95	57.53	7.15	14.90	301.4
TARF50140FL	50	140	103	72	22.5	95	75	93	163.1	391.2	35.6	64.5	5.3
	1.97	5.51	4.06	2.83	0.89	3.74	2.95	3.66	36.67	87.95	8.00	14.50	363.05
TARF55145FL	55	145	103	72	22.5	100	80	98	160.8	394.8	26.4	55.1	5.2
	2.17	5.71	4.06	2.83	0.89	3.94	3.15	3.86	36.15	88.75	5.93	12.39	356.2
TARF60150FL	60	150	103	72	22.5	105	90	105	171.6	442.6	36.1	84.7	5.8
	2.36	5.91	4.06	2.83	0.89	4.13	3.54	4.13	38.58	99.50	8.12	19.04	397.3
TARF65155FL	65	155	103	72	22.5	110	90	108	175.9	468	54	104	6.1
	2.56	6.10	4.06	2.83	0.89	4.33	3.54	4.25	39.54	105.21	12.14	23.38	417.85
TARF70160FL	70	160	103	72	22.5	115	100	115	180.1	493.4	65	131	6.3
	2.76	6.30	4.06	2.83	0.89	4.53	3.94	4.53	40.49	110.92	14.61	29.45	431.55
TARF75185FL	75	185	125	87	27	135	115	135	257.9	678.6	79.5	147	6.7
	2.95	7.28	4.92	3.43	1.06	5.31	4.53	5.31	57.98	152.56	17.87	33.05	458.95
TARF90210FL	90	210	135	94.5	32	160	130	158	309.8	876.1	103	220	8.3
	3.54	8.27	5.31	3.72	1.26	6.30	5.12	6.22	69.65	196.96	23.16	49.46	568.55

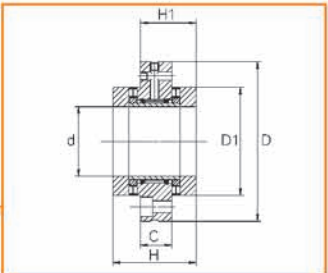
							Load Ratings According to ISO				
							Axial		Radial		
Part Number	d	D	H	H1	C	D1	Dy- namic	Static	Dy- namic	Static	Axial Stiff- ness
	mm.	mm.	mm.	mm.	mm.	mm.	kN	kN	kN	kN	kN/μm
	in	in	in	in	in	in	10^3 lbf	10^3 lbf	10^3 lbf	10^3 lbf	10^6 lbf/ft
TARN1545	15	45	40	28	16	35	25	41.2	8.4	11.1	1.3
	0.59	1.77	1.57	1.10	0.63	1.38	5.62	9.26	1.89	2.50	89.05
TARN2052	20	52	46	31	16	42	32.7	64.8	9.6	14.6	2
	0.79	2.05	1.81	1.22	0.63	1.65	7.35	14.57	2.16	3.28	137
TARN2062	20	62	60	40	20	52	58.8	105.9	14.6	22.3	2.2
	0.79	2.44	2.36	1.57	0.79	2.05	13.22	23.81	3.28	5.01	150.7
TARN2557	25	57	50	35	20	47	34.8	75.2	13.4	24.5	1.3
	0.98	2.24	1.97	1.38	0.79	1.85	7.82	16.91	3.01	5.51	89.05
TARN2572	25	72	60	40	20	62	74.5	160.2	16.2	27.2	4.7
	0.98	2.83	2.36	1.57	0.79	2.44	16.75	36.01	3.64	6.11	321.95
TARN3062	30	62	50	35	20	52	35.3	81.1	16.2	27.2	2.4
	1.18	2.44	1.97	1.38	0.79	2.05	7.94	18.23	3.64	6.11	164.4
TARN3080	30	80	66	43	20	68	90.4	181.5	17.6	32.5	3.1
	1.18	3.15	2.60	1.69	0.79	2.68	20.32	40.80	3.96	7.31	212.35
TARN3570	35	70	54	37	20	60	50.7	117.5	17.6	32.5	2.8
	1.38	2.76	2.13	1.46	0.79	2.36	11.40	26.42	3.96	7.31	191.8
TARN3585	35	85	66	43	20	73	98.7	212.7	18.4	35.1	3.6
	1.38	3.35	2.60	1.69	0.79	2.87	22.19	47.82	4.14	7.89	246.6
TARN4075	40	75	54	37	20	65	55.7	138.7	18.4	35.1	3.3
	1.57	2.95	2.13	1.46	0.79	2.56	12.52	31.18	4.14	7.89	226.05
TARN4090	40	90	75	50	25	78	101.8	229.9	25.5	55	3.8
	1.57	3.54	2.95	1.97	0.98	3.07	22.89	51.68	5.73	12.36	260.3
TARN4580	45	80	60	42.5	25	70	56.6	146.7	25.5	55	3.5
	1.77	3.15	2.36	1.67	0.98	2.76	12.72	32.98	5.73	12.36	239.75
TARN45105	45	105	82	53.5	25	90	151.3	344	31.8	54.2	4.7
	1.77	4.13	3.23	2.11	0.98	3.54	34.01	77.33	7.15	12.18	321.95
TARN5090	50	90	60	42.5	25	78	84.3	255.9	31.8	66.3	4.4
	1.97	3.54	2.36	1.67	0.98	3.07	18.95	57.53	7.15	14.90	301.4
TARN50110	50	110	82	53.5	25	95	163.1	391.2	35.6	64.5	5.3
	1.97	4.33	3.23	2.11	0.98	3.74	36.67	87.95	8.00	14.50	363.05
TARN55115	55	115	82	53.5	25	100	160.8	394.8	26.4	55.1	5.2
	2.17	4.53	3.23	2.11	0.98	3.94	36.15	88.75	5.93	12.39	356.2
TARN60120	60	120	82	53.5	25	105	171.6	442.6	36.1	84.7	5.8
	2.36	4.72	3.23	2.11	0.98	4.13	38.58	99.50	8.12	19.04	397.3
TARN65125	65	125	82	53.5	25	110	175.9	468	54	104	6.1
	2.56	4.92	3.23	2.11	0.98	4.33	39.54	105.21	12.14	23.38	417.85
TARN70130	70	130	82	53.5	25	115	180.1	493.4	65	131	6.3
	2.76	5.12	3.23	2.11	0.98	4.53	40.49	110.92	14.61	29.45	431.55
TARN75155	75	155	100	65	30	135	257.9	678.6	79.5	147	6.7
	2.95	6.10	3.94	2.56	1.18	5.31	57.98	152.56	17.87	33.05	458.95
TARN90180	90	180	110	72.5	35	160	309.8	876.1	103	220	8.3
	3.54	7.09	4.33	2.85	1.38	6.30	69.65	196.96	23.16	49.46	568.55

TARN-L
Extended shaft washer allows additional sealing



Load Ratings According to ISO													
Part Number	d	D	H	H1	C	D1	D2	D3	Axial		Radial		Axial Stiffness
									Dynamic	Static	Dynamic	Static	
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	kN	kN	kN	kN	kN/μm
	in	in	in	in	in	in	in	in	10 ³ lbf	10 ³ lbf	10 ³ lbf	10 ³ lbf	10 ⁶ lbf/ft
TARN1545L	15	45	53	41	16	35	24	34.8	25	41.2	8.4	11.1	1.3
	0.59	1.77	2.09	1.61	0.63	1.38	0.94	1.37	5.62	9.26	1.89	2.50	89.05
TARN2052L	20	52	60	45	16	42	30	40	32.7	64.8	9.6	14.6	2
	0.79	2.05	2.36	1.77	0.63	1.65	1.18	1.57	7.35	14.57	2.16	3.28	137
TARN2062L	20	62	75	55	20	52	40	50	58.8	105.9	14.6	22.3	2.2
	0.79	2.44	2.95	2.17	0.79	2.05	1.57	1.97	13.22	23.81	3.28	5.01	150.7
TARN2557L	25	57	65	50	20	47	36	45	34.8	75.2	13.4	24.5	1.3
	0.98	2.24	2.56	1.97	0.79	1.85	1.42	1.77	7.82	16.91	3.01	5.51	89.05
TARN2572L	25	72	75	55	20	62	48	60	74.5	160.2	16.2	27.2	4.7
	0.98	2.83	2.95	2.17	0.79	2.44	1.89	2.36	16.75	36.01	3.64	6.11	321.95
TARN3062L	30	62	65	50	20	52	40	50	35.3	81.1	16.2	27.2	2.4
	1.18	2.44	2.56	1.97	0.79	2.05	1.57	1.97	7.94	18.23	3.64	6.11	164.4
TARN3080L	30	80	82	59	20	68	52	66	90.4	181.5	17.6	32.5	3.1
	1.18	3.15	3.23	2.32	0.79	2.68	2.05	2.60	20.32	40.80	3.96	7.31	212.35
TARN3570L	35	70	70	53	20	60	45	58	50.7	117.5	17.6	32.5	2.8
	1.38	2.76	2.76	2.09	0.79	2.36	1.77	2.28	11.40	26.42	3.96	7.31	191.8
TARN3585L	35	85	82	59	20	73	60	73	98.7	212.7	18.4	35.1	3.6
	1.38	3.35	3.23	2.32	0.79	2.87	2.36	2.87	22.19	47.82	4.14	7.89	246.6
TARN4075L	40	75	70	53	20	65	50	63	55.7	138.7	18.4	35.1	3.3
	1.57	2.95	2.76	2.09	0.79	2.56	1.97	2.48	12.52	31.18	4.14	7.89	226.05
TARN4090L	40	90	93	68	25	78	60	78	101.8	229.9	25.5	55	3.8
	1.57	3.54	3.66	2.68	0.98	3.07	2.36	3.07	22.89	51.68	5.73	12.36	260.3
TARN4580L	45	80	75	57.5	25	70	56	68	56.6	146.7	25.5	55	3.5
	1.77	3.15	2.95	2.26	0.98	2.76	2.20	2.68	12.72	32.98	5.73	12.36	239.75
TARN45105L	45	105	103	74.5	25	90	70	88	151.3	344	31.8	54.2	4.7
	1.77	4.13	4.06	2.93	0.98	3.54	2.76	3.46	34.01	77.33	7.15	12.18	321.95
TARN5090L	50	90	78	60.5	25	78	60	78	84.3	255.9	31.8	66.3	4.4
	1.97	3.54	3.07	2.38	0.98	3.07	2.36	3.07	18.95	57.53	7.15	14.90	301.4
TARN50110L	50	110	103	74.5	25	95	75	93	163.1	391.2	35.6	64.5	5.3
	1.97	4.33	4.06	2.93	0.98	3.74	2.95	3.66	36.67	87.95	8.00	14.50	363.05
TARN55115L	55	115	103	74.5	25	100	80	98	160.8	394.8	26.4	55.1	5.2
	2.17	4.53	4.06	2.93	0.98	3.94	3.15	3.86	36.15	88.75	5.93	12.39	356.2
TARN60120L	60	120	103	74.5	25	105	90	105	171.6	442.6	36.1	84.7	5.8
	2.36	4.72	4.06	2.93	0.98	4.13	3.54	4.13	38.58	99.50	8.12	19.04	397.3
TARN65125L	65	125	103	74.5	25	110	90	108	175.9	468	54	104	6.1
	2.56	4.92	4.06	2.93	0.98	4.33	3.54	4.25	39.54	105.21	12.14	23.38	417.85
TARN70130L	70	130	103	74.5	25	115	100	115	180.1	493.4	65	131	6.3
	2.76	5.12	4.06	2.93	0.98	4.53	3.94	4.53	40.49	110.92	14.61	29.45	431.55
TARN75155L	75	155	125	90	30	135	115	135	257.9	678.6	79.5	147	6.7
	2.95	6.10	4.92	3.54	1.18	5.31	4.53	5.31	57.98	152.56	17.87	33.05	458.95
TARN90180L	90	180	135	97.5	35	160	130	158	309.8	876.1	103	220	8.3
	3.54	7.09	5.31	3.84	1.38	6.30	5.12	6.22	69.65	196.96	23.16	49.46	568.55

TARF-F
Flanges designed to accommodate mounting,
relieved outer ring allows additional sealing



							Load Ratings According to ISO				
							Axial		Radial		
Part Number	d	D	H	H1	C	D1	Dy- namic	Static	Dynamic	Static	Axial Stiffness
	mm.	mm.	mm.	mm.	mm.	mm.	kN	kN	kN	kN	kN/μm
	in	in	in	in	in	in	10^3 lbf	10^3 lbf	10^3 lbf	10^3 lbf	10^6 lbf/ft
TARF1560F	15	60	40	26	14	35	25	41.2	8.4	11.1	1.3
	0.59	2.36	1.57	1.02	0.55	1.38	5.62	9.26	1.89	2.50	89.05
TARF2080F	20	68	46	29	14	42	32.7	64.8	9.6	14.6	2
	0.79	2.68	1.81	1.14	0.55	1.65	7.35	14.57	2.16	3.28	137
TARF2080F	20	80	60	38	18	52	58.8	105.9	14.6	22.3	2.2
	0.79	3.15	2.36	1.50	0.71	2.05	13.22	23.81	3.28	5.01	150.7
TARF2575F	25	75	50	33	18	47	34.8	75.2	13.4	24.5	1.3
	0.98	2.95	1.97	1.30	0.71	1.85	7.82	16.91	3.01	5.51	89.05
TARF2590F	25	90	60	38	18	62	74.5	160.2	16.2	27.2	4.7
	0.98	3.54	2.36	1.50	0.71	2.44	16.75	36.01	3.64	6.11	321.95
TARF3080F	30	80	50	33	18	52	35.3	81.1	16.2	27.2	2.4
	1.18	3.15	1.97	1.30	0.71	2.05	7.94	18.23	3.64	6.11	164.4
TARF30105F	30	105	66	41	18	68	90.4	181.5	17.6	32.5	3.1
	1.18	4.13	2.60	1.61	0.71	2.68	20.32	40.80	3.96	7.31	212.35
TARF3590F	35	90	54	35	18	60	50.7	117.5	17.6	32.5	2.8
	1.38	3.54	2.13	1.38	0.71	2.36	11.40	26.42	3.96	7.31	191.8
TARF35110F	35	110	66	41	18	73	98.7	212.7	18.4	35.1	3.6
	1.38	4.33	2.60	1.61	0.71	2.87	22.19	47.82	4.14	7.89	246.6
TARF40100F	40	100	54	35	18	65	55.7	138.7	18.4	35.1	3.3
	1.57	3.94	2.13	1.38	0.71	2.56	12.52	31.18	4.14	7.89	226.05
TARF40115F	40	115	75	47.5	22.5	78	101.8	229.9	25.5	55	3.8
	1.57	4.53	2.95	1.87	0.89	3.07	22.89	51.68	5.73	12.36	260.3
TARF40105F	40	105	60	40	22.5	70	56.6	146.7	25.5	55	3.5
	1.57	4.13	2.36	1.57	0.89	2.76	12.72	32.98	5.73	12.36	239.75
TARF45130F	45	130	82	51	22.5	90	151.3	344	31.8	54.2	4.7
	1.77	5.12	3.23	2.01	0.89	3.54	34.01	77.33	7.15	12.18	321.95
TARF50115F	50	115	60	40	22.5	78	84.3	255.9	31.8	66.3	4.4
	1.97	4.53	2.36	1.57	0.89	3.07	18.95	57.53	7.15	14.90	301.4
TARF50140F	50	140	82	51	22.5	95	163.1	391.2	35.6	64.5	5.3
	1.97	5.51	3.23	2.01	0.89	3.74	36.67	87.95	8.00	14.50	363.05
TARF55145F	55	145	82	51	22.5	100	160.8	394.8	26.4	55.1	5.2
	2.17	5.71	3.23	2.01	0.89	3.94	36.15	88.75	5.93	12.39	356.2
TARF60150F	60	150	82	51	22.5	105	171.6	442.6	36.1	84.7	5.8
	2.36	5.91	3.23	2.01	0.89	4.13	38.58	99.50	8.12	19.04	397.3
TARF65155F	65	155	82	51	22.5	110	175.9	468	54	104	6.1
	2.56	6.10	3.23	2.01	0.89	4.33	39.54	105.21	12.14	23.38	417.85
TARF70160F	70	160	82	51	22.5	115	180.1	493.4	65	131	6.3
	2.76	6.30	3.23	2.01	0.89	4.53	40.49	110.92	14.61	29.45	431.55
TARF75185F	75	185	100	62	27	135	257.9	678.6	79.5	147	6.7
	2.95	7.28	3.94	2.44	1.06	5.31	57.98	152.56	17.87	33.05	458.95
TARF90210F	90	210	110	69.5	32	160	309.8	876.1	103	220	8.3
	3.54	8.27	4.33	2.74	1.26	6.30	69.65	196.96	23.16	49.46	568.55