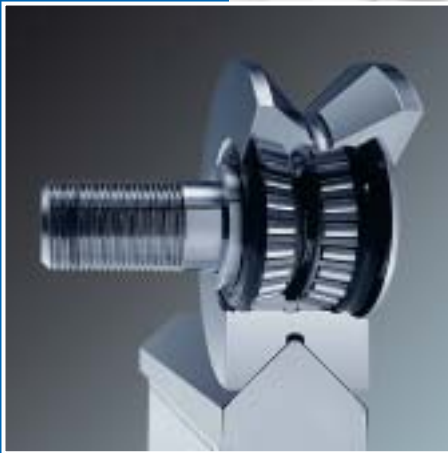


**Load  
Runners®**



Idler-Rollers and  
Load Rails for  
high-capacity  
load handling

**OSBORN®**  
INTERNATIONAL

High Performance

Through out this Comprehensive Catalogue Osborn International offers customers the opportunity to access this wide range of standard products which experience suggests should more than satisfy the majority of applications, while still offering individual solutions where the standard is not appropriate.

Our aim is to pass on the benefits of wide geographical coverage in both manufacturing and marketing while providing a service responsive to ever changing needs. As demands increase and become more specialised, the range of products and service we offer grows accordingly.



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## Advantages

### Maintenance-free at -34°C to 107°C

- Load Runners® are lubricated for life
- Special lubricants for more adverse conditions are also available
- Re-lubrication facility can be added

### Completely sealed

- All Load Runners® are sealed with tough contact seals
- Seals exclude harmful contaminants such as dirt, sand and moisture
- Metallic seals for high temperature applications can be added

### Hardened outer treads 55 - 60 RC

- High quality heat treating ensures long tread life and minimal wear

### Standard sizes

- Load Runners® are manufactured in sizes that are recognized in all industrial applications as standard up from  $\varnothing$  26 mm to  $\varnothing$  250 mm
- This is true in both the metric and inch program
- These standard sizes are usually available from stock

### Ease of installation

- Stud type Load Runners® have standard hex keys broached into the stud end of the roller for trouble-free fitting and removal
- Hex keys can be broached into both sides of the roller
- Yoke style Load Runners® can be mounted with Osborn heavy duty shafts or with customer fabricated shafts. The key element of installation is insuring positive clamping force on both sides of the roller

### High strength studs

- Load Runners® have high strength studs, designed to withstand extreme shearing forces
- They are well-suited for cantilever type mounting applications

### Ball/Tapered roller bearings

- For high radial and simultaneous high thrust capacity
- Excellent radial capacity
- Superior thrust capacity

## Applications

### Automotive Industry

Conveyors and handling systems in assembly plants, automated storage and more..

### Steel- and Aluminium Industry

Conveyors and in-process handling systems for carrying/guiding product through inplant operations, rolling mills, galvanizing lines, induction heating equipment and more...

### Foundry Industry

Molding and core-making machines for handling flasks...

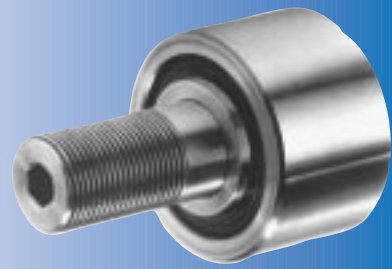
### Other Applications

Food industry, pulp and paper industry, wood working industry, stone working machines, cranes, refuse systems, ship building, satellite positioning systems, wrapping and packaging machinery...



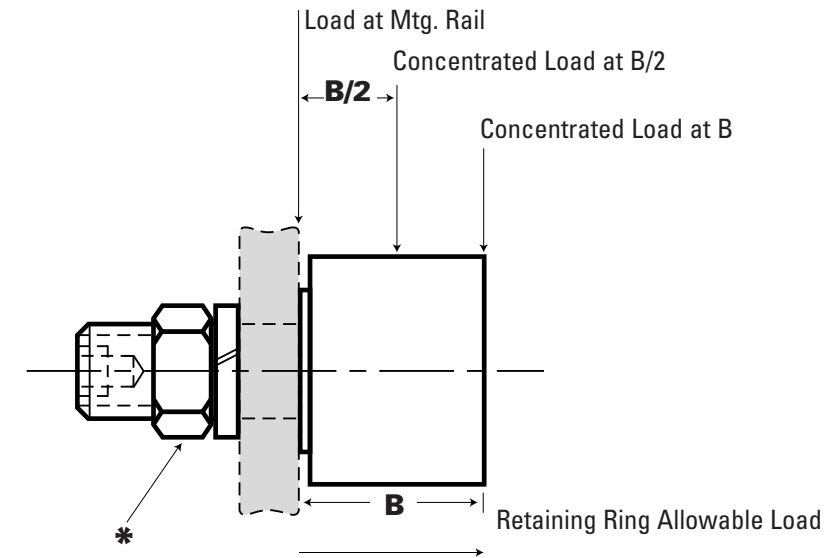
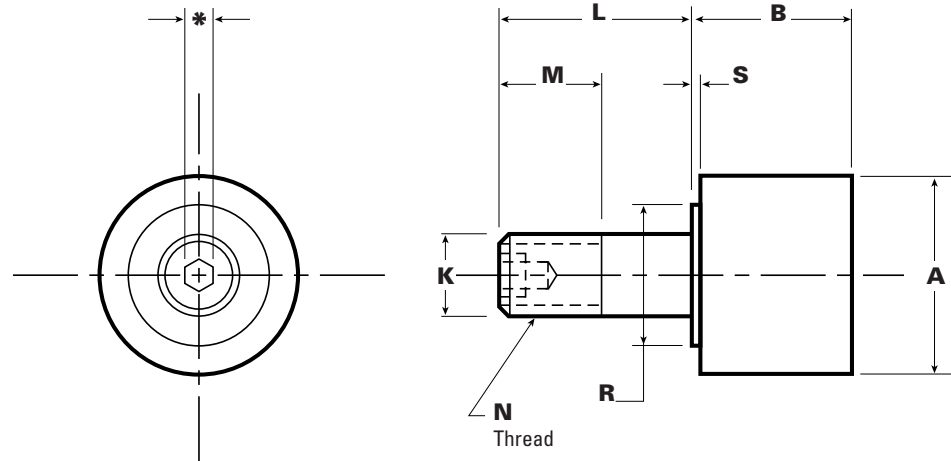
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**Plain-Stud Style**

- radial and thrust loads
- easy to install



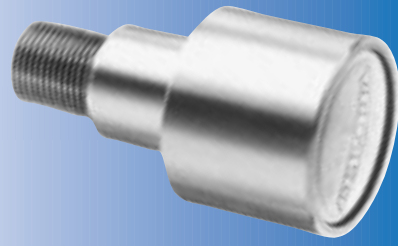
Part No.	EDP No.	A		K	L	M	N	R	S	Rec. Mtg. Hole Size	Approx. Weight (Kg)	Ball or Tapered Roller Bearings	Bearing Capacity, Radial Load [N]			Bearing Capacity, Thrust Load [N]			Stud Capacity [N]			Ret. Ring Allow. Load [N]
		Roller Dia.	Roller Width										Stud Dia.	Stud Length	Thread Length	Thread	Shldr. Dia.	Shldr. Length	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	max. Radial Static Limit	
		+0,00 -0,02		+0,00 -0,02															Concent. Load at B/2	Concent. Load at B	Load at Mtg. Rail	
HPC-26	097 374-9907	26	20	10	23	13	M10x1	13,1	0,8	10,02	0,09	BB	1060	2790	1000	650	1720	1350	1990	900	8700	2090
HPC-30	097 375-9907	30	20	12	25	14	M12x1,5	15,9	0,8	12,02	0,11	BB	1060	2790	1000	650	1720	1350	1990	900	8700	2090
HPC-32	097 376-9907	32	22	12	25	14	M12x1,5	15,9	0,8	12,02	0,14	BB	2290	6000	2680	1410	3700	1950	3750	1670	14400	2090
HPC-35	097 377-9907	35	22	16	32,5	18	M16x1,5	19,1	0,8	16,02	0,17	BB	2290	6000	2680	1410	3700	1950	3750	1670	14400	2090
HPC-40	095 064-9907	40	30	14	40	26	M14	18	1,6	14,02	0,27	BB	4670	12 200	4900	2890	7560	2650	6110	3250	25 470	2090
HPC-40-1	095 063-9907	40	27,6	18	36,5	19	M18x1,5	22	1,6	18,02	0,24	BB	4670	12 200	4900	2890	7560	2650	6230	3560	25 470	2090
HPC-47	095 065-9907	47	27,6	20	40,5	21	M20x1,5	25,5	1,6	20,02	0,42	BB	4670	12 200	4900	2890	7560	2650	6230	3560	25 470	2090
HPC-50	095 068-9907	50	40	16	50	35	M16	23	1,6	16,02	0,54	BB	6450	17 000	7200	4030	10 600	3050	8790	5080	45 760	4050
HPC-52	095 066-9907	52	33,6	20	40,5	21	M20x1,5	25,5	1,6	20,02	0,54	BB	6450	17 000	7200	4030	10 600	3050	13 810	7670	50 220	4050
HPC-62	095 070-9907	62	44	24	58	35	M24	32	1,6	24,02	1,04	BB	8800	23 100	10 100	5400	14 200	6850	16 000	8750	64 850	5960
HPC-62-1	095 069-9907	62	44	24	49,5	25	M24x1,5	32	1,6	24,02	1,04	BB	8800	23 100	10 100	5400	14 200	6850	16 000	8750	64 850	5960
HPC-72	095 072-9907	72	44	24	49,5	25	M24x1,5	32	1,6	24,02	1,40	TRB	20 330	48 400	33 900	7520	17 840	20 330	26 860	15 740	104 040	-
HPC-76	095 074-9907	76	52	30	69,5	40	M30	44,5	1,6	30,02	1,91	TRB	26 700	63 600	89 000	10 800	25 700	53 400	44 670	25 880	160 520	-
HPC-80	095 075-9907	80	52	30	69,5	40	M30	44,5	1,6	30,02	2,07	TRB	26 700	63 600	89 000	10 800	25 700	53 400	44 670	25 880	160 520	-
HPC-85	095 076-9907	85	52	30	69,5	40	M30	44,5	1,6	30,02	2,37	TRB	26 700	63 600	89 000	10 800	25 700	53 400	44 670	25 880	160 520	-
HPC-90	095 077-9907	90	52	30	69,5	40	M30	44,5	1,6	30,02	2,65	TRB	26 700	63 600	89 000	10 800	25 700	53 400	44 670	25 880	160 520	-
HPC-100	095 079-9907	100	52	30	80	50	M30	44,5	1,6	30,02	3,33	TRB	26 700	63 600	89 000	10 800	25 700	53 400	44 670	25 880	160 520	-
HPC-100-1	095 078-9907	100	52	30	69,5	40	M30	44,5	1,6	30,02	3,15	TRB	26 700	63 600	89 000	10 800	25 700	53 400	44 670	25 880	160 520	-
HPC-125	095 080-9907	125	76	48	105	60	M48	82,5	1,6	48,02	8,48	TRB	62 200	148 100	230 800	24 600	58 500	144 600	128 010	70 500	411 800	-
HPC-150	095 081-9907	150	76	64	140	82	M64	82,5	1,6	64,02	12,50	TRB	67 000	159 000	251 000	26 500	63 000	147 000	303 430	163 550	732 100	-
HPC-200	095 082-9907	200	76	64	140	82	M64	82,5	1,6	64,02	21,87	TRB	67 000	159 000	251 000	26 500	63 000	147 000	303 430	163 550	732 100	-

Other dimensions available on request.  
 \* For stud hex socket size, see page 45.  
 Lock washer and jam nut available at additional cost.  
 For size see "N" dimension.  
 For special features and custom design considerations, see page 39.

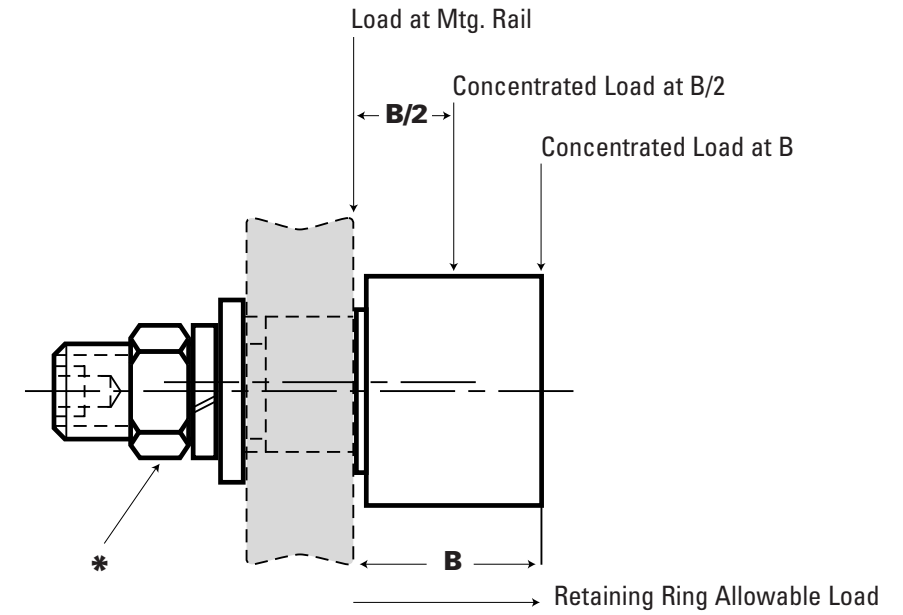
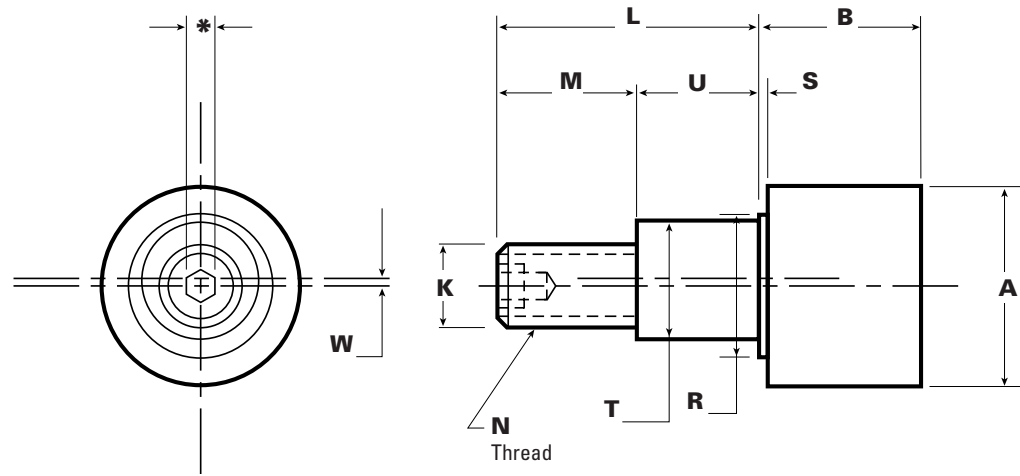
**Metric  
Sizes (mm)**

\* Lock washer and jam nut available at additional cost.  
 For Size see „N“ dimension.

## Plain Eccentric-Stud Style



- radial and thrust loads
- easy to install
- vertical adjustment



Part No.	EDP No.	A	B	K	L	M	N	R	S	T	U	W	Rec. Mtg. Hole Size	Approx. Weight (Kg)	Ball or Tapered Roller Bearings	Bearing Capacity, Radial Load [N]			Bearing Capacity, Thrust Load [N]			Stud Capacity [N]			Ret. Ring Allow. Load [N]
		Roller Dia.	Roller Width	Stud Dia.	Stud Length	Thread Length	Thread	Shldr. Dia.	Shldr. Length	Eccent. Dia.	Eccent. Length	Eccentricity				3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Radial Static Limit	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Limiting Static Thrust	Bending = .75 S <sub>y</sub>		Shear = .75 x .5 x S <sub>y</sub> Load at Mtg. Rail	
		+0,00 -0,02								+0,00 -0,05	+0,00 -0,25					+0,02 -0,00						Concent. Load at B/2	Concent. Load at B		
HPCE-26	097 378-9907	26	20	10	23	13	M10x1	17,1	0,8	13,00	10	0,5	13,02	0,11	BB	1060	2790	1000	650	1720	1350	1990	900	8700	2090
HPCE-30	097 379-9907	30	20	12	25	14	M12x1,5	17,5	0,8	15,00	11	0,5	15,02	0,14	BB	1060	2790	1000	650	1720	1350	1990	900	8700	2090
HPCE-32	097 380-9907	32	22	12	25	14	M12x1,5	17,5	0,8	15,00	11	0,5	15,02	0,17	BB	2290	6000	2680	1410	3700	1950	3750	1670	14400	2090
HPCE-35	097 381-9907	35	22	16	32,5	18	M16x1,5	23,8	0,8	20,00	14,5	1	20,02	0,20	BB	2290	6000	2680	1410	3700	1950	3750	1670	14400	2090
HPCE-40-1	095 833-9907	40	27,6	18	36,5	20,5	M18x1,5	28,5	1,6	22,00	16	1	22,02	0,29	BB	4670	12 200	4900	2890	7560	2650	6230	3250	25 470	2090
HPCE-47	095 835-9907	47	27,6	20	40,5	22,5	M20x1,5	32	1,6	24,00	18	1	24,02	0,45	BB	4670	12 200	4900	2890	7560	2650	6230	3250	25 470	2090
HPCE-50	095 837-9907	50	40	16	50	32	M16	32	1,6	24,00	18	1	24,02	0,69	BB	6450	17 700	7200	4030	10 600	3050	14 450	7740	51 750	4050
HPCE-52	095 836-9907	52	33,6	20	40,5	22,5	M20x1,5	32	1,6	24,00	18	1	24,02	0,72	BB	6450	17 700	7200	4030	10 600	3050	14 450	7740	51 750	4050
HPCE-62	095 839-9907	62	44	24	58	38	M24	43	1,6	28,00	20	1,5	28,02	1,10	BB	8800	23 100	10 100	5400	14 200	6850	16 000	8680	64 850	5960
HPCE-62-1	095 838-9907	62	44	24	49,5	27,5	M24x1,5	43	1,6	28,00	22	1	28,02	1,08	BB	8800	23 100	10 100	5400	14 200	6850	16 000	8680	64 850	5960
HPCE-72	095 840-9907	72	44	20	49,5	27,5	M20x1,5	38	1,6	28,00	22	1	24,02	1,60	TRB	20 330	48 400	33 950	7520	17 840	20 330	17 990	9870	71 950	-
HPCE-76-1	095 841-9907	76	52	24	70	41	M24x1,5	50	1,6	35,00	29	1,5	35,02	1,99	TRB	26 700	63 600	89 000	10 800	25 700	53 400	27 840	14 690	101 870	-
HPCE-80	095 843-9907	80	52	24	70	41	M24x1,5	50	1,6	35,00	29	1,5	35,02	2,39	TRB	26 700	63 600	89 000	10 800	25 700	53 400	27 840	14 690	101 870	-
HPCE-85	095 844-9907	85	52	24	70	41	M24x1,5	50	1,6	35,00	29	1,5	35,02	2,54	TRB	26 700	63 600	89 000	10 800	25 700	53 400	27 840	14 690	101 870	-
HPCE-90	095 845-9907	90	52	24	70	41	M24x1,5	50	1,6	35,00	29	1,5	35,02	2,98	TRB	26 700	63 600	89 000	10 800	25 700	53 400	27 840	14 690	101 870	-
HPCE-100	095 846-9907	100	52	24	70	41	M24x1,5	50	1,6	35,00	29	1,5	35,02	3,29	TRB	26 700	63 600	89 000	10 800	25 700	53 400	27 840	14 690	101 870	-
HPCE-125	095 847-9907	125	76	48	105	55	M48	82,5	1,6	64,00	50	1,5	64,02	8,73	TRB	62 200	148 100	230 800	24 600	58 500	144 600	143 070	74 830	411 800	-
HPCE-150	095 848-9907	150	76	64	140	75	M64	82,5	1,6	80,00	65	1,5	80,02	13,92	TRB	67 000	159 000	251 000	26 500	63 100	147 000	330 120	173 200	720 500	-

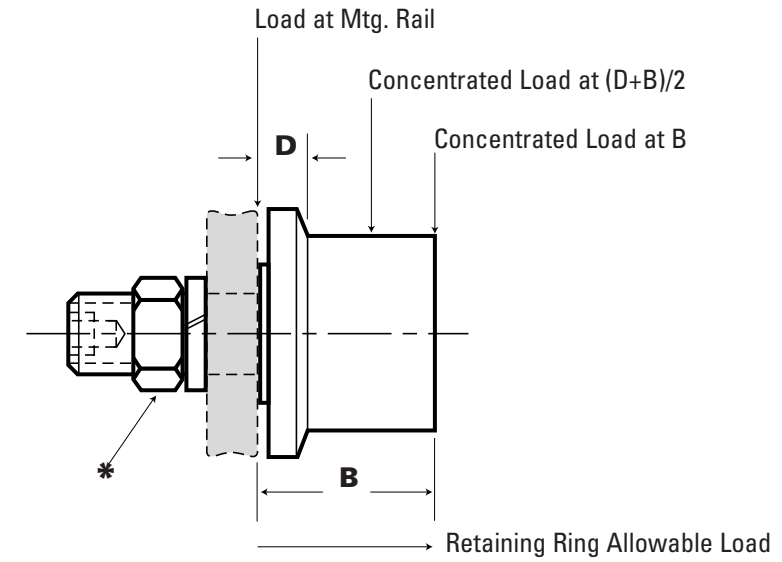
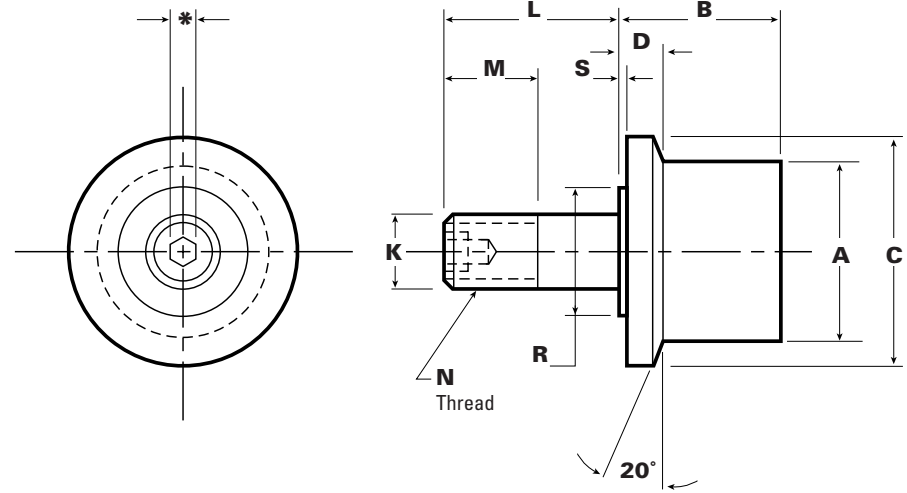
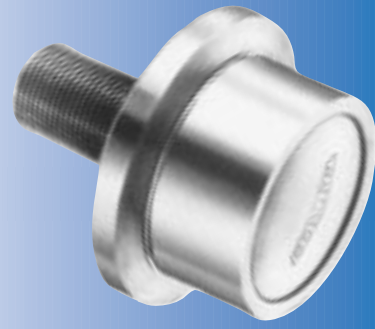
Other dimensions available on request.  
\* For stud hex socket size, see page 45.  
Lock washer and jam nut available at additional cost.  
For size see "N" dimension.  
For special features and custom design considerations, see page 39.

### Metric Sizes (mm)

\* Lock washer and jam nut available at additional cost.  
For Size see „N“ dimension.

## Flanged-Stud Style

- radial and thrust loads
- easy to install



Part No.	EDP No.	A	B	C	D	K	L	M	N	R	S	Rec. Mtg. Hole Size	Approx. Weight (Kg)	Ball or Tapered Roller Bearings	Bearing Capacity, Radial Load [N]			Bearing Capacity, Thrust Load [N]			Stud Capacity [N]			Ret. Ring Allow. Load [N]
		Roller Dia.	Roller Width	Flange Dia.	Flange Thickness	Stud Dia.	Stud Length	Thread Length	Thread	Shldr. Dia.	Shldr. Length				3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Radial Static Limit	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Limiting Static Thrust	Bending=.75 S <sub>y</sub>		Shear .75 x .5 x S <sub>y</sub>	
						+0,00 -0,02															Concent. Load at (D+B)/2	Concent. Load at B		
HPJ-26	097 382-9907	26	20	35	5	10	23	13	M10x1	13,1	0,8	10,02	0,11	BB	1060	2790	1000	650	1720	1350	1560	900	8700	2090
HPJ-30	097 383-9907	30	20	40	5	12	25	14	M12x1,5	15,9	0,8	12,02	0,14	BB	1060	2790	1000	650	1720	1350	1560	900	8700	2090
HPJ-32	097 384-9907	32	22	42	5	12	25	14	M12x1,5	15,9	0,8	12,02	0,17	BB	2290	6000	2680	1410	3700	1950	2950	1670	14400	2090
HPJ-35	097 385-9907	35	22	46	5	16	32,5	18	M16x1,5	19,1	0,8	16,02	0,20	BB	2290	6000	2680	1410	3700	1950	2950	1670	14400	2090
HPJ-40	095 410-9907	40	30	54	8,8	14	40	26	M14	18	1,6	14,02	0,33	BB	4670	12 200	4900	2890	7560	2650	5000	3320	25 470	2090
HPJ-40-1	095 409-9907	40	27,6	54	7,8	18	36,5	19	M18x1,5	22	1,6	18,02	0,24	BB	4670	12 200	4900	2890	7560	2650	5000	3320	25 470	2090
HPJ-47	095 411-9907	47	27,6	61	7,8	20	40,5	21	M20x1,5	25,5	1,6	20,02	0,47	BB	4670	12 200	4900	2890	7560	2650	5000	3320	25 470	2090
HPJ-50	095 415-9907	50	40	68	14,0	16	50	35	M16	23	1,6	16,02	0,70	BB	6450	17 000	7200	4030	10 600	3050	6860	5000	45 760	4050
HPJ-52	095 413-9907	52	33,6	66	10,8	20	40,5	21	M20x1,5	25,5	1,6	20,02	0,83	BB	6450	17 000	7200	4030	10 600	3050	11 110	7810	51 750	4050
HPJ-62	095 420-9907	62	44	78	14,0	24	58	35	M24	32	1,6	24,02	1,21	BB	8800	23 100	10 100	5400	14 200	6850	12 280	8740	64 850	5960
HPJ-62-2	095 418-9907	62	44	78	14,0	24	49,5	25	M24x1,5	32	1,6	24,02	1,21	BB	8800	23 100	10 100	5400	14 200	6850	12 280	8740	64 850	5960
HPJ-72	095 422-9907	72	44	90	14,0	24	49,5	25	M24x1,5	32	1,6	24,02	1,28	TRB	20 330	48 400	33 950	7520	17 840	20 330	20 820	15 250	101 860	-
HPJ-76	095 427-9907	76	52	98	14,0	30	69,5	40	M30	44,5	1,6	30,02	2,17	TRB	26 700	63 600	89 000	10 800	25 700	53 400	37 000	25 880	160 520	-
HPJ-80	095 429-9907	80	52	102	14,0	30	69,5	40	M30	44,5	1,6	30,02	2,41	TRB	26 700	63 600	89 000	10 800	25 700	53 400	37 000	25 880	160 520	-
HPJ-85	095 430-9907	85	52	107	14,0	30	69,5	40	M30	44,5	1,6	30,02	2,75	TRB	26 700	63 600	89 000	10 800	25 700	53 400	37 000	25 880	160 520	-
HPJ-90	095 431-9907	90	52	112	14,0	30	69,5	40	M30	44,5	1,6	30,02	2,98	TRB	26 700	63 600	89 000	10 800	25 700	53 400	37 000	25 880	160 520	-
HPJ-100	095 435-9907	100	52	125	14,0	30	80	50	M30	44,5	1,6	30,02	3,70	TRB	26 700	63 600	89 000	10 800	25 700	53 400	37 000	25 880	160 520	-
HPJ-100-1	095 434-9907	100	52	125	14,0	30	69,5	40	M30	44,5	1,6	30,02	3,52	TRB	26 700	63 600	89 000	10 800	25 700	53 400	37 000	25 880	160 520	-
HPJ-125	095 440-9907	125	76	148	18,0	48	105	60	M48	82,5	1,6	48,02	8,86	TRB	62 200	148 100	230 800	24 600	58 500	144 600	105 750	69 000	411 800	-
HPJ-150	095 441-9907	150	76	173	18,3	64	140	82	M64	82,5	1,6	64,02	13,07	TRB	67 000	159 000	251 000	26 500	63 000	147 000	247 430	160 830	720 500	-
HPJ-200	095 443-9907	200	76	223	18,3	64	140	82	M64	82,5	1,6	64,02	20,37	TRB	67 000	159 000	251 000	26 500	63 000	147 000	247 430	160 830	720 500	-

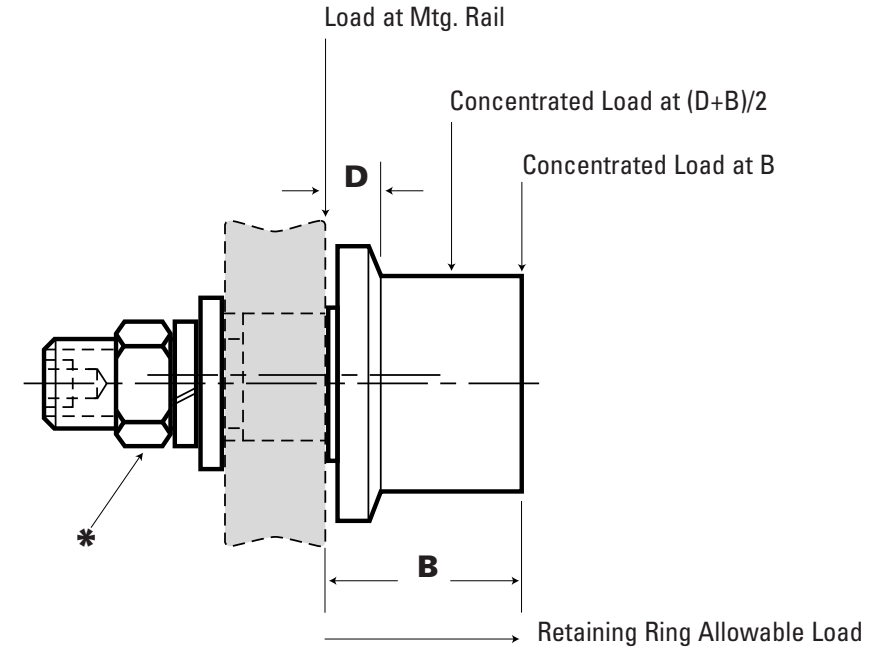
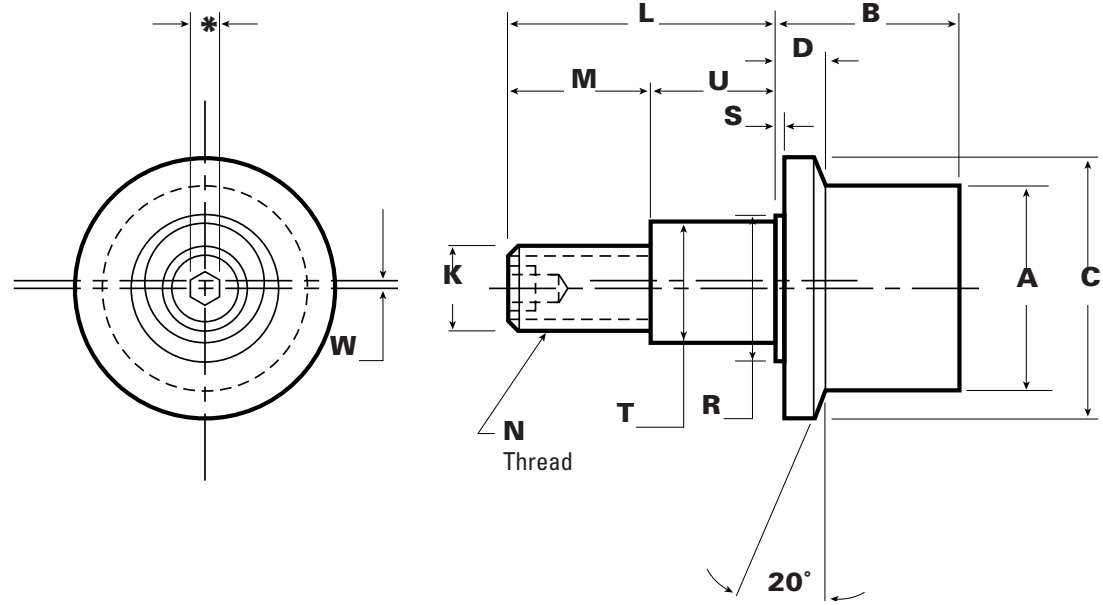
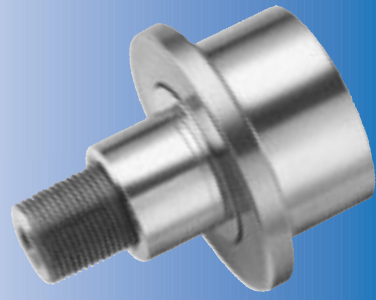
Other dimensions available on request.  
\* For stud hex socket size, see page 45.  
Lock washer and jam nut available at additional cost.  
For size see "N" dimension.  
For special features and custom design considerations, see page 39.

### Metric Sizes (mm)

\* Lock washer and jam nut available at additional cost.  
For Size see „N“ dimension.

## Flanged Eccentric-Stud Style

- radial and thrust loads
- easy to install
- vertical adjustment



Part No.	EDP No.	A	B	C	D	K	L	M	N	R	S	T	U	W	Rec. Mtg. Hole Size	Approx. Weight (Kg)	Ball or Tapered Roller Bearings	Bearing Capacity, Radial Load [N]			Bearing Capacity, Thrust Load [N]			Stud Capacity [N]			Ret. Ring Allow. Load [N]	
		Roller Dia.	Roller Width	Flange Dia.	Flange Thick-ness	Stud Dia.	Stud Length	Thread Length	Thread	Shldr. Dia.	Shldr. Length	Eccent. Dia.	Eccent. Length					Eccent.	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Radial Static Limit	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Limiting Static Thrust	Bending=.75 S <sub>y</sub>			Shear .75 x .5 x S <sub>y</sub>
												+0,00 -0,05	+0,00 -0,25												Concent. Load at (D+B)/2	Concent. Load at B		
HPJE-26	097 386-9907	26	20	35	5	10	23	13	M10x1	17,1	0,8	13,00	10	0,5	13,02	0,14	BB	1060	2790	1000	650	1720	1350	1560	900	8700	2090	
HPJE-30	097 387-9907	30	20	40	5	12	25	14	M12x1,5	17,5	0,8	15,00	11	0,5	15,02	0,17	BB	1060	2790	1000	650	1720	1350	1560	900	8700	2090	
HPJE-32	097 388-9907	32	22	42	5	12	25	14	M12x1,5	17,5	0,8	15,00	11	0,5	15,02	0,20	BB	2290	6000	2680	1410	3700	1950	2950	1670	14400	2090	
HPJE-35	097 389-9907	35	22	46	5	16	32,5	18	M16x1,5	23,8	0,8	20,00	14,5	1	20,02	0,23	BB	2290	6000	2680	1410	3700	1950	2950	1670	14400	2090	
HPJE-40-1	095 907-9907	40	27,6	54	7,8	18	36,5	20,5	M18x1,5	28,5	1,6	22,00	16	1	22,02	0,35	BB	4670	12 200	4900	2890	7560	2650	4990	3560	25 470	2090	
HPJE-50	095 909-9907	50	40	68	14,0	16	50	32	M16	32	1,6	24,00	18	1	24,02	0,94	BB	6450	17 000	7200	4030	10 600	3050	12 040	7740	51 750	4050	
HPJE-62-1	095 910-9907	62	44	78	14,0	24	49,5	27,5	M24x1,5	43	1,6	28,00	22	1	28,02	1,13	BB	8800	23 100	10 100	5400	14 200	6850	12 160	8750	64 850	5960	
HPJE-76	095 912-9907	76	52	98	14,0	24	70	41	M24x1,5	50	1,6	35,00	29	1,5	35,02	2,31	TRB	26 700	63 600	89 000	10 800	25 700	53 400	22 670	15 160	104 040	-	
HPJE-90	095 913-9907	90	52	112	14,0	24	70	41	M24x1,5	50	1,6	35,00	29	1,5	35,02	3,09	TRB	26 700	63 600	89 000	10 800	25 700	53 400	22 670	15 160	104 040	-	
HPJE-100	095 914-9907	100	52	125	14,0	24	70	41	M24x1,5	50	1,6	35,00	29	1,5	35,02	3,79	TRB	26 700	63 600	89 000	10 800	25 700	53 400	22 670	15 160	104 040	-	
HPJE-125	095 915-9907	125	76	148	18,0	48	105	55	M48	82,5	1,6	64,00	50	1,5	64,02	9,28	TRB	62 200	148 100	230 800	24 600	58 500	144 600	117 220	75 420	411 800	-	
HPJE-150	095 916-9907	150	76	173	18,3	64	140	75	M64	92	1,6	80,00	65	1,5	80,02	14,86	TRB	67 000	159 000	251 000	26 500	63 000	147 000	270 280	171 880	720 520	-	

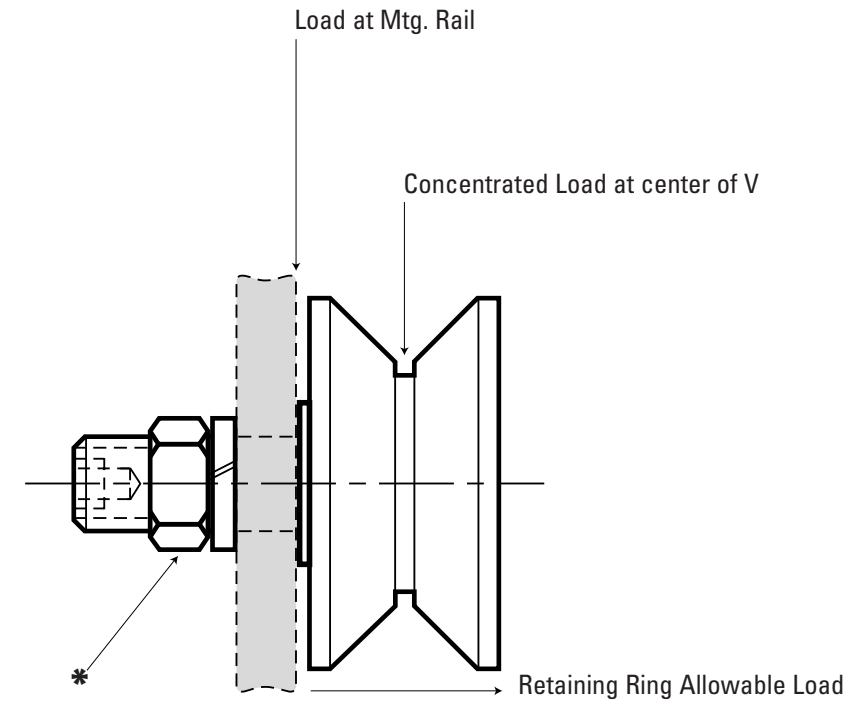
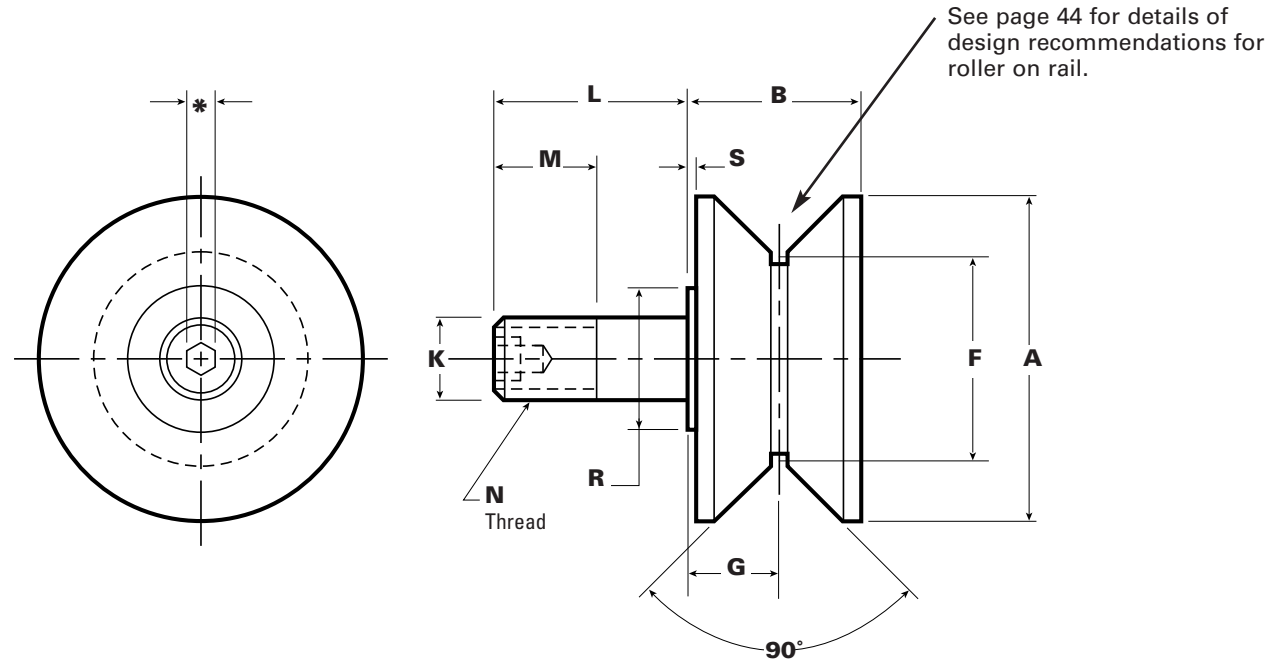
Other dimensions available on request.  
\* For stud hex socket size, see page 45.  
Lock washer and jam nut available at additional cost.  
For size see "N" dimension.  
For special features and custom design considerations, see page 39.

\* Lock washer and jam nut available at additional cost.  
For Size see „N“ dimension.

### Metric Sizes (mm)

## V-Grooved-Stud Style

- radial and thrust loads
- roller profile sheds solid contaminants



Part No.	EDP No.	A	B	F	G	K	L	M	N	R	S	Rec. Mtg. Hole Size	Approx. Weight (Kg)	Ball or Tapered Roller Bearings	Bearing Capacity, Radial Load [N]			Bearing Capacity, Thrust Load [N]			Stud Capacity [N]		Ret. Ring Allow. Load [N]
		Roller Dia.	Roller Width	Point Dia.	Groove Location	Stud Dia.	Stud Length	Thread Length	Thread	Shldr. Dia.	Shldr. Length				3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Radial Static Limit	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Limiting Static Thrust	Bending=.75 S <sub>y</sub>	Shear = .75 x .5 x S <sub>y</sub>	
						+0,00 -0,02									+0,02 -0,00						Concent. Load at V	Load at Mtg. Rail	
HPV-26	097 390-9907	40	20	26	10	10	23	13	M10x1	13,1	0,8	10,02	0,23	BB	1060	2790	1000	650	1720	1350	2020	8700	2090
HPV-32	097 391-9907	50	22	32	11	12	25	14	M12x1,5	15,9	0,8	12,02	0,26	BB	2290	6000	2680	1410	3700	1950	3950	14400	2090
HPV-40	095 648-9907	60	33	40	17	14	40	26	M14	18	1,6	14,02	0,44	BB	4670	12 200	4900	2890	7560	2650	7030	34 870	2090
HPV-62	095 652-9907	90	44,5	62	23	24	57,9	34,9	M24	32	1,6	24,02	1,48	BB	8800	23 100	10 100	5400	14 200	6850	17 130	64 850	5960
HPV-62-1	095 651-9907	90	44,5	62	23	24	49,5	25	M24x1,5	32	1,6	24,02	1,45	BB	8800	23 100	10 100	5400	14 200	6850	17 130	64 850	5960
HPV-76	095 654-9907	120	50,5	76	26	30	70	40	M30	44,5	1,6	30,02	2,69	TRB	26 700	63 500	89 000	10800	25 700	53 400	45 930	160 520	-
HPV-100	095 656-9907	140	50,5	100	26	30	80	50	M30	44,5	1,6	30,02	4,11	TRB	26 700	63 500	89 000	10800	25 700	53 400	45 930	160 520	-
HPV-100-1	095 655-9907	140	50,5	100	26	30	69,5	40	M30	44,5	1,6	30,02	4,05	TRB	26 700	63 500	89 000	10800	25 700	53 400	45 930	160 520	-
HPV-125	095 657-9907	165	76	125	37,8	48	105	60	M48	82,5	1,6	48,02	9,92	TRB	62 200	148 100	168 800	24600	58 500	144 600	130 590	291 230	-

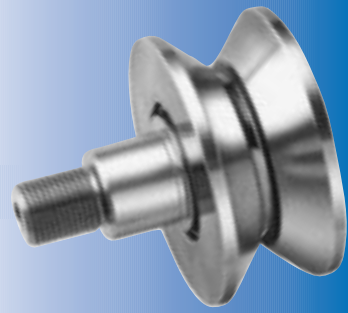
Other dimensions available on request.  
 \* For stud hex socket size, see page 45.  
 Lock washer and jam nut available at additional cost.  
 For size see "N" dimension.  
 For special features and custom design considerations, see page 39.

\* Lock washer and jam nut available at additional cost.  
 For Size see „N“ dimension.

### Metric Sizes (mm)

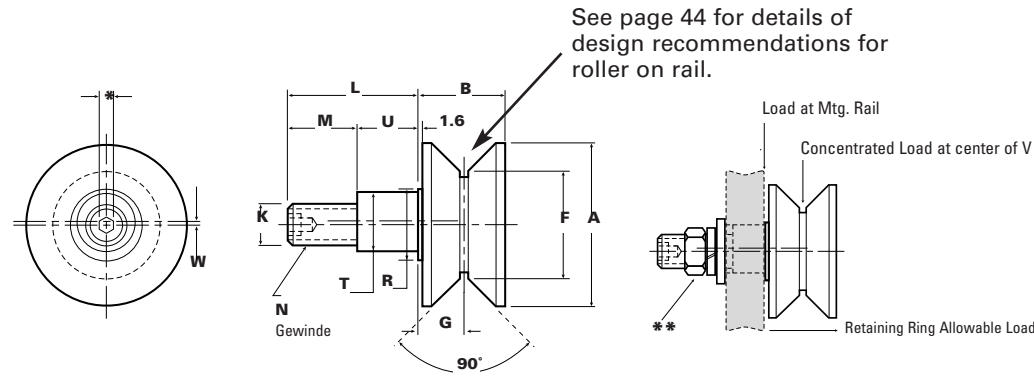
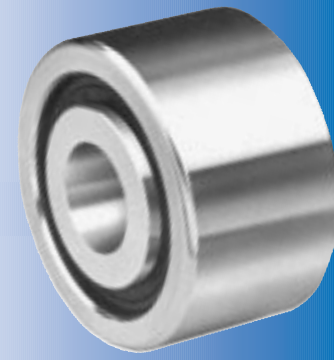
## V-Grooved Eccentric-Stud Style

- radial and thrust loads
- roller profile sheds solid contaminants
- vertical adjustment

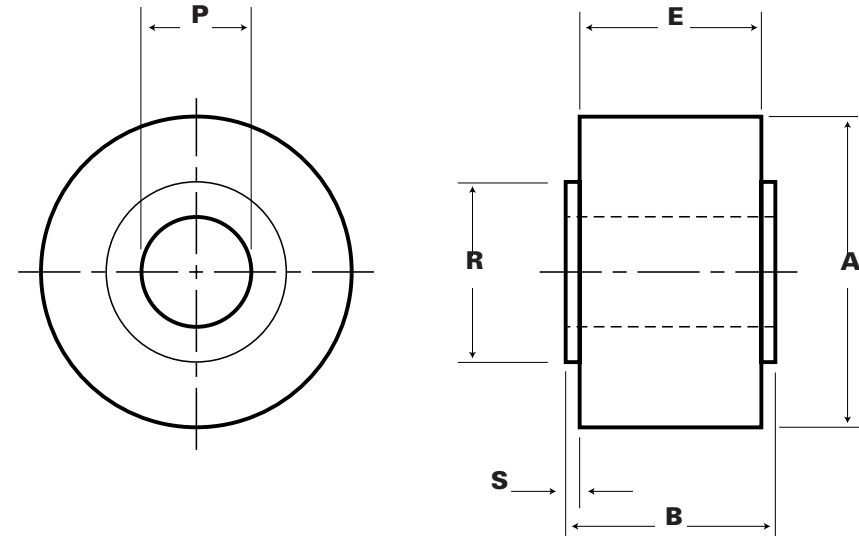


## Plain-Yoke-Style

- radial and thrust loads
- higher capacity than stud style



Part No.	EDP No.	A	B	F	G	K	L	M	N	R	S	T	U	W	Rec. Mtg. Hole Size	Approx. Weight (Kg)
		Roller Dia.	Roller Width	Point Dia.	Groove Loc.	Stud Dia.	Stud Length	Thread Length	Thread	Shldr. Dia.	Shldr. Length	Eccent. Dia.	Eccent. Length	Eccent.		
HPVE-26	097 392-9907	40	20	26	10	10	23	13	M10x1	17,1	0,8	13,00	10	0,5	13,02	0,26
HPVE-32	097 393-9907	50	22	32	11	12	25	14	M12x1,5	17,5	0,8	15,00	11	0,5	15,02	0,30
HPVE-40	095 951-9907	60	33	40	17	14	40	24	M14	28,5	1,6	22,00	16	1	22,02	0,48
HPVE-62	095 953-9907	90	44,5	62	23	24	58	38	M24	43	1,6	28,00	20	1,5	28,02	1,51
HPVE-62-1	095 952-9907	90	44,5	62	23	24	49,5	27,5	M24x1,5	43	1,6	28,00	22	1	28,02	1,48
HPVE-76	095 955-9907	120	50,5	76	26	24	70	41	M24x1,5	50	1,6	35,00	29	1,5	35,02	2,67
HPVE-100	095 956-9907	140	50,5	100	26	24	70	41	M24x1,5	50	1,6	35,00	29	1,5	35,02	4,04
HPVE-125	095 957-9907	165	76	125	37,8	48	105	55	M48	82,5	1,6	64,00	50	1,5	64,02	10,47



Part No.	Ball or Tapered Roller Bearings	Bearing Capacity, Radial Load [N]			Bearing Capacity, Thrust Load [N]			Stud Capacity [N]		Ret. Ring Allow. Load [N]
		3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Radial Static Limit	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Limiting Static Thrust	Bending = .75 S <sub>y</sub>	Shear = .75 x .5 x S <sub>y</sub>	
					Concent. Load at V		Load at Mtg. Rail			
HPVE-26	BB	1060	2790	1000	650	1720	1350	2020	8700	2090
HPVE-32	BB	2290	6000	2680	1410	3700	1950	3950	14400	2090
HPVE-40	BB	4670	12 200	4900	2890	7560	2650	5440	25 470	2090
HPVE-62	BB	8800	23 100	10 100	5400	14 200	6850	15 790	64 850	5960
HPVE-62-1	BB	8800	23 100	10 100	5400	14 200	6850	15 790	64 850	5960
HPVE-76	TRB	26 700	63 500	89 000	10 800	25 700	53 400	28 840	101 860	-
HPVE-100	TRB	26 700	63 500	89 000	10 800	25 700	53 400	28 840	101 860	-
HPVE-125	TRB	62 200	148 100	168 800	24 600	58 500	144 600	147 400	291 230	-

Other dimensions available on request.

\* For stud hex socket size, see page 45.

\*\* Lock washer and jam nut available at additional cost.

For size see "N" dimension.

For special features and custom design considerations, see page 39.

**Metric Sizes (mm)**

Part No.	EDP No.	A	B	E	P	R	S	Tapered Roller Bearings	Bearing Capacity, Radial Load [N]			Bearing Capacity, Thrust Load [N]			Approx. Weight (Kg)
		Roller Dia.	Roller Width	Tread Width	Bore	Shldr. Dia.	Shldr. Length		3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Radial Static Limit	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Limiting Static Thrust	
HPCA-62	097 297-9907	62	40	38	20	32	1,0	Kegel	20 300	48 400	33 900	7500	17 800	20 300	0,81
HPCA-76	096 105-9907	76	46	44	25	44,5	1,0	Kegel	26 700	63 500	89 000	10 800	25 700	53 400	1,40
HPCA-80	096 107-9907	80	46	44	25	44,5	1,0	Kegel	26 700	63 500	89 000	10 800	25 700	53 400	1,57
HPCA-85	096 108-9907	85	46	44	25	44,5	1,0	Kegel	26 700	63 500	89 000	10 800	25 700	53 400	1,79
HPCA-90	096 109-9907	90	56	54	30	57,2	1,0	Kegel	32 900	78 200	121 000	10 700	25 600	58 300	2,40
HPCA-100	096 110-9907	100	56	54	30	57,2	1,0	Kegel	32 900	78 200	121 000	10 700	25 600	58 300	3,03
HPCA-125	096 111-9907	125	71	68	45	82,6	1,5	Kegel	62 200	148 100	230 800	24 600	58 500	144 600	5,70
HPCA-150	096 112-9907	150	73	70	55	88,9	1,5	Kegel	67 000	159 000	251 000	26 500	63 000	147 000	8,40
HPCA-200	096 114-9907	200	79	76	70	108	1,5	Kegel	79 200	188 600	355 000	32 400	77 400	215 000	16,45
HPCA-250	096 116-9907	250	79	76	70	108	1,5	Kegel	79 200	188 600	355 000	32 400	77 400	215 000	26,99

Other dimensions available on request.

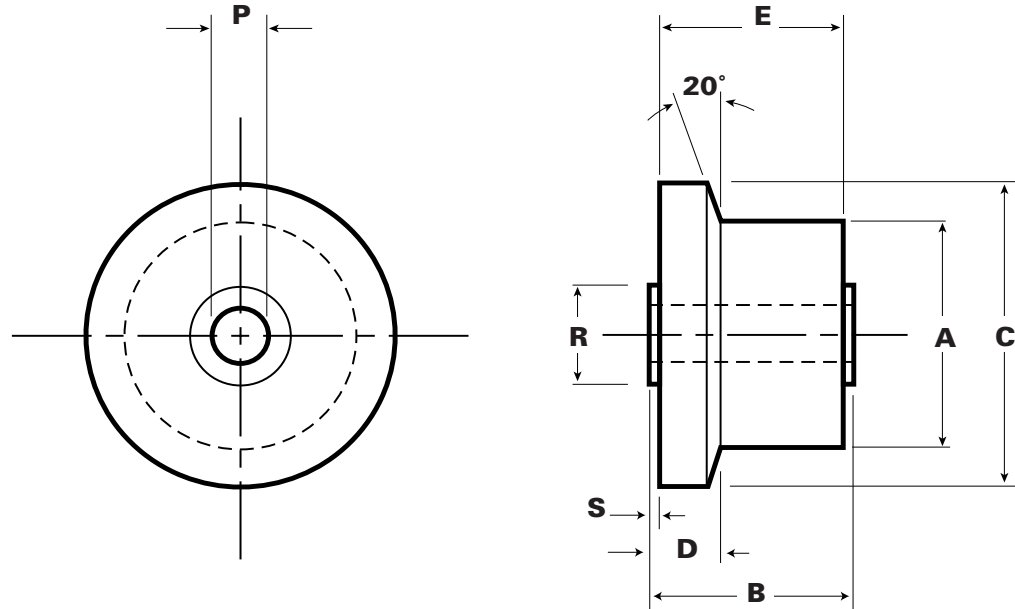
For special features and custom design considerations, see page 39.

Heavy-duty shafts see page 20.

**Metric Sizes (mm)**

## Flanged-Yoke Style

- radial and thrust loads
- higher capacity than stud style



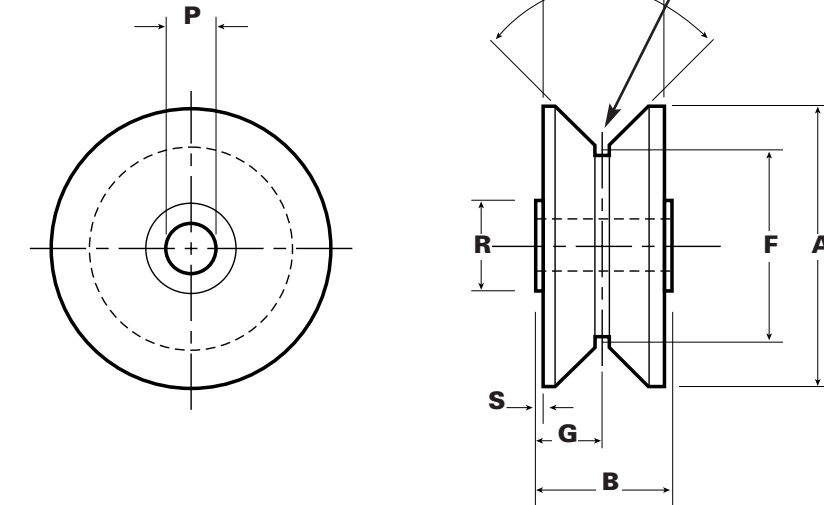
Part No.	EDP No.	Dimensions (mm)									Bearing Capacity, Radial Load [N]			Bearing Capacity, Thrust Load [N]			Approx. Weight (Kg)
		A	B	C	D	E	P	R	S	Tapered Roller Bearings	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Radial Static Limit	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Limiting Static Thrust	
HPJA-62	097 298-9907	62	40	78	14	38	20	32	1,0	TRB	20 300	48 400	33 900	7500	17 800	20 300	0,97
HPJA-76	096 209-9907	76	46	98	13,5	44	25	44,5	1,0	TRB	26 700	63 500	89 000	10 800	25 700	53 400	1,65
HPJA-80	096 210-9907	80	46	102	13,5	44	25	44,5	1,0	TRB	26 700	63 500	89 000	10 800	25 700	53 400	1,82
HPJA-85	096 211-9907	85	46	107	13,5	44	25	44,5	1,0	TRB	26 700	63 500	89 000	10 800	25 700	53 400	2,06
HPJA-90	096 212-9907	90	56	112	13,5	54	30	57,2	1,0	TRB	32 900	78 200	121 000	10 700	25 600	58 300	2,69
HPJA-100	096 213-9907	100	56	122	13,5	54	30	57,2	1,0	TRB	32 900	78 200	121 000	10 700	25 600	58 300	3,35
HPJA-125	096 214-9907	125	71	148	18,2	68	45	82,6	1,5	TRB	62 200	148 100	230 800	24 600	58 500	144 600	6,27
HPJA-150	096 215-9907	150	73	173	18,2	70	55	88,9	1,5	TRB	67 000	159 000	251 000	26 500	63 000	147 000	9,07
HPJA-200	096 217-9907	200	79	223	18,2	76	70	108	1,5	TRB	79 200	188 600	355 000	32 400	77 400	215 000	17,33
HPJA-250	096 219-9907	250	79	273	18,2	76	70	108	1,5	TRB	79 200	188 600	355 000	32 400	77 400	215 000	28,07

Other dimensions available on request.  
For special features and custom design considerations, see page 39.  
Heavy-duty shafts see page 20.

**Metric  
Sizes (mm)**

## V-Grooved-Yoke Style

- radial and thrust loads
- higher capacity than stud style
- rail profile sheds solid contaminants



See page 44 for details of design recommendations for roller on rail.

Part No.	EDP No.	Dimensions (mm)									Bearing Capacity, Radial Load [N]			Bearing Capacity, Thrust Load [N]			Approx. Weight (Kg)
		A	B	E	F	G	P	R	S	Tapered Roller Bearings	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Radial Static Limit	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Limiting Static Thrust	
HPVA-62	097 299-9907	90	40	38	62	22	20	32	1,0	TRB	20 300	48 400	33 900	7500	17 800	20 300	1,02
HPVA-76	096 255-9907	110	46	44	76	23	25	44,5	1,0	TRB	26 700	63 600	89 000	10 800	25 700	53 400	1,77
HPVA-100	096 256-9907	140	56	54	100	28	30	57,2	1,0	TRB	32 900	78 200	121 000	10 700	25 600	58 300	3,73
HPVA-125	096 257-9907	165	71	68	125	35,5	45	82,6	1,5	TRB	62 200	148 100	168 880	24 600	58 500	97 500	6,79
HPVA-150	096 259-9907	190	73	70	150	36,5	55	88,9	1,5	TRB	67 000	159 200	198 400	26 500	63 000	99 200	9,74
HPVA-200	096 261-9907	240	79	76	200	39,5	70	108	1,5	TRB	79 200	188 600	268 200	32 400	77 400	133 900	18,37
HPVA-250	096 263-9907	290	79	76	250	39,5	70	108	1,5	TRB	79 200	188 600	268 200	32 400	77 400	133 900	29,38

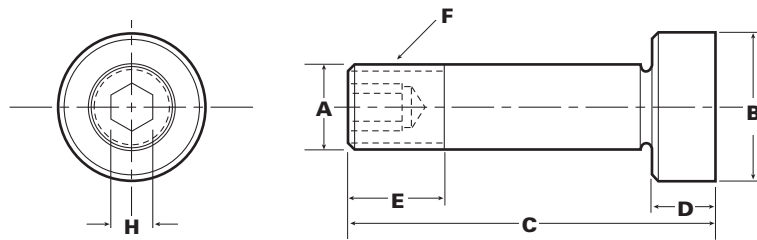
Other dimensions available on request.  
For special features and custom design considerations, see page 39.  
Heavy-duty shafts see page 20.

**Metric  
Sizes (mm)**

**Heavy-Duty Shafts for metric  
Yoke Style Idler-Rollers**

Shaft Part No.	EDP No.	Roller Part No.			A	B	C	D	E	F	H	Approx. Weight (Kg)
		Typ HPCA	Typ HPJA	Typ HPVA	Shaft Dia.	Head Dia.	Shaft Length	Head Length	Thread Length	Thread	Hex Size	
MSHA-20	097 300-9907	62	62	62	20 -0,025 -0,050	31,75 -0,025 -0,050	94	16	25	M20x1,5	8	0,70
MSHA-25	095 001-9907	76	76	76	25	44,5	110	19	29	M24x1,5	8	0,75
		85	85	85								
MSHA-30	095 002-9907	90	90	100	30	57,2	135	22	31	M30	12	0,95
		100	100	100								
MSHA-45	095 003-9907	125	125	125	45	82,6	185	32	54	M45	12	1,50
MSHA-55	095 004-9907	150	150	150	55	88,9	195	32	62	M52	12	5,70
MSHA-70	095 005-9907	200	200	200	70	108,0	220	35	74	M70	12	10,00
		250	250	250								

**Shaft Style A**  
includes jam nut and lock washer



**Heavy-Duty  
Shafts for inch  
Yoke Style  
Idler-Rollers**

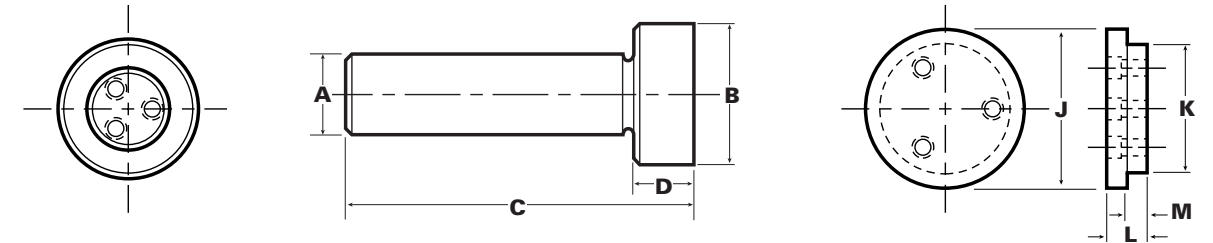
Shaft Part No.	EDP No.	Roller Part No.			A	B	C	D	E	F	H	Approx. Weight (Lbs)
		Typ PLY	Typ FLY	Typ VLY	Shaft Dia.	Head Dia.	Shaft Length	Head Length	Thread Length	Thread	Hex Size	
SHA-750	095 006-9907	2 1/2	2 1/2	3 3/4	0,750 -0,0002 -0,0012	1,250 -0,0002 -0,0012	3,687	0,625	1,000	3/4"-16	0,312	1,2
SHA-1000	095 008-9907	3 & 3/4	3 & 3/4	4 1/2	1,000	1,750	4,312	0,750	1,125	1"-14	0,500	1,5
SHA-1125	095 020-9907	3 1/2	3 1/2	5	1,125	2,000	4,875	0,875	1,187	1 1/8"-12	0,500	2,1
SHA-1250	095 023-9907	4	4	5 1/2	1,250	2,250	5,250	0,875	1,312	1 1/4"-12	0,500	2,7
SHA-1750	095 028-9907	5	5	6 1/2	1,750	3,500	7,000	1,250	1,875	1 3/4"-12	0,500	8,3
SHA-2250	095 036-9907	6	6	7 1/2	2,250	3,500	7,750	1,250	2,125	2 1/4"-12	0,625	12,6
SHA-2750	095 042-9907	7	7	8 1/2	2,750	4,250	9,000	1,375	2,625	2 3/4"-12	0,625	22,3

Other dimensions available on request.  
For special features and custom design considerations,  
see page 39.

**Inch  
Sizes**

**Heavy-Duty Shafts for  
inch Yoke Style Idler-Rollers**

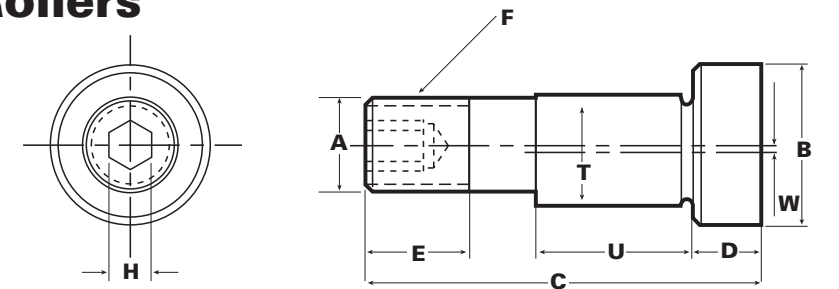
**Shaft Style B**  
includes shaft retainers, socket head cap screws  
and lock washers



Shaft Part No.	EDP No.	Roller Part No.			A	B	C	D	J	K	L	M	Approx. Weight (Lbs)
		Typ PLY	Typ FLY	Typ VLY	Shaft Dia.	Head Dia.	Shaft Length	Head Length	Retainer Length	Retainer Length	Retainer Length		
SHB-3250	095 045-9907	8	8	9 1/2	3,254 -0,0002 -0,0012	4,750 -0,0002 -0,0012	7,625	1,875	4,000	3,250	1,000	0,500	25,3
SHB-3750	095 049-9907	9	9	10 1/2	3,754	5,500	8,625	2,125	4,500	3,750	1,125	0,500	38,3
SHB-4250	095 050-9907	10	10	11 1/2	4,254	6,500	9,375	2,250	5,000	4,250	1,125	0,500	54,6

**Heavy-Duty Eccentric Shafts for  
inch Yoke Style Idler-Rollers**

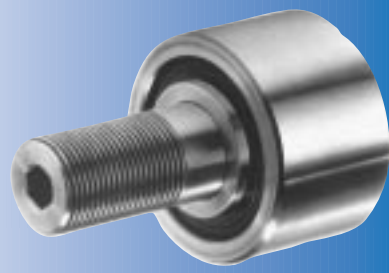
**Shaft Style E**  
includes flat washer, jam nut  
and lock washer



Shaft Part No.	EDP No.	Roller Part No.			A	B	C	D	E	F	H	T	U	W
		Typ PLY	Typ FLY	Typ VLY	Shaft Dia.	Head Dia.	Shaft Length	Head Length	Thread Length	Thread	Hex size	Eccentric Dia.	Eccentric Length	Eccentricity
SHE-750	97507	2 1/2	2 1/2	3 3/4	0,625 -0,0002 -0,0012	1,250 -0,0002 -0,0012	3,687	0,625	0,750	5/8-18	0,312	0,750	1,375	0,030
SHE-1000	95056	3 & 3/4	3 & 3/4	4 1/2	0,875	1,750	4,312	0,750	0,750	7/8-14	0,500	1,000	1,635	0,030
SHE-1125	95058	3 1/2	3 1/2	5	1,000	2,000	4,875	0,875	0,875	1-14	0,500	1,125	1,875	0,030
SHE-1250	95059	4	4	5 1/2	1,000	2,250	5,250	0,875	0,875	1-14	0,500	1,250	2,135	0,060
SHE-1750	96848	5	5	6 1/2	1,500	3,500	7,000	1,250	1,250	1-1/2-12	0,500	1,750	2,713	0,060
SHE-2250	97508	6	6	7 1/2	2,000	3,500	7,750	1,250	1,250	2-12	0,625	2,250	3,156	0,060
SHE-2750	97509	7	7	8 1/2	2,500	4,250	9,000	1,375	2,336	2-1/2-12	0,625	2,750	4,437	0,060

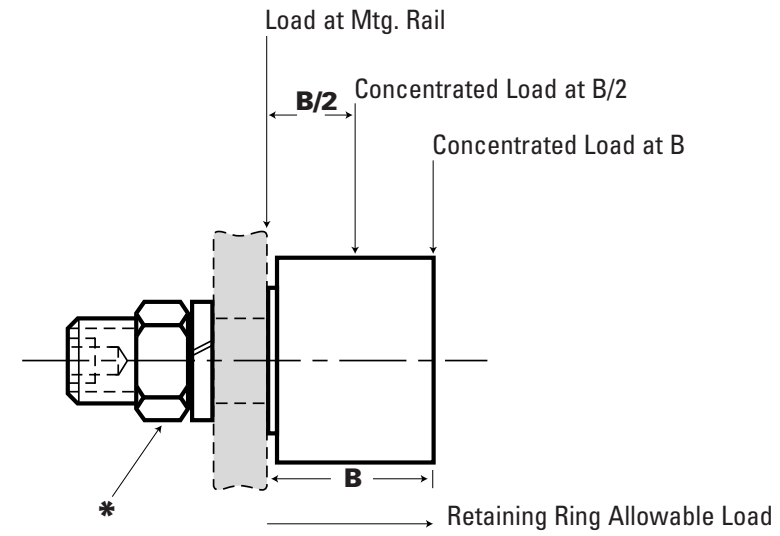
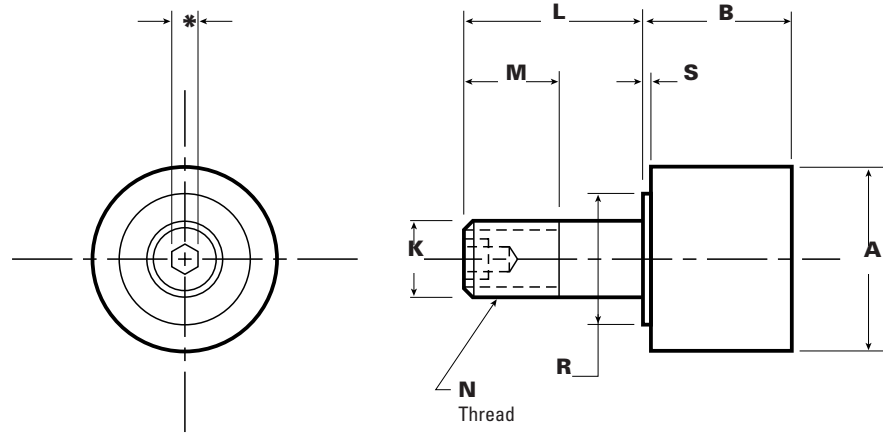
Other dimensions available on request.  
For special features and custom design  
considerations, see page 39.

**Inch  
Sizes**



**Plain-Stud Style**

- radial and thrust loads
- easy to install



Part No.	EDP No.	A		K	L	M	N	R	S	Rec. Mtg. Hole Size	Mounting Member Thickness		Approx. Weight (Lbs)	Ball or Tapered Roller Bearings	Bearing Capacity, Radial Load (Lbs)			Bearing Capacity, Thrust Load (Lbs)			Stud Capacity (Lbs)			Ret. Ring Allow. Load (Lbs)	
		Roller Dia.	Roller Width	Stud Dia.	Stud Length	Thread Length	Fine Thread	Shldr. Dia.	Shldr. Length		Max.	Min.			3000 Hrs. L <sub>10</sub> @ 100 RPM	500 Hrs. L <sub>10</sub> @ 33 1/3 RPM	Radial Static Limit	3000 Hrs. L <sub>10</sub> @ 100 RPM	500 Hrs. L <sub>10</sub> @ 33 1/3 RPM	Limiting Static Thrust	Bending = .75 S <sub>y</sub>		Shear = .75 x .5 x S <sub>y</sub>		
		+0,000 -0,001		+0,000 -0,001																		Concent. Load at B/2			Concent. Load at B
PLR1	097 318-9907	1,000	0,781	0,437	1,000	0,500	7/16-20	0,500	0,031	0,438	0,625	0,500	0,2	BB	235	625	225	145	385	300	450	200	1970	470	
PLR1-1/8	097 319-9907	1,125	0,781	0,437	1,000	0,500	7/16-20	0,500	0,031	0,438	0,625	0,500	0,3	BB	235	625	225	145	385	300	450	200	1970	470	
PLR1-1/4	097 320-9907	1,250	0,844	0,500	1,250	0,625	1/2-20	0,625	0,031	0,501	0,750	0,625	0,3	BB	515	1350	600	315	830	440	870	390	3250	470	
PLR1-3/8	097 321-9907	1,375	0,844	0,500	1,250	0,625	1/2-20	0,625	0,031	0,501	0,750	0,625	0,4	BB	515	1350	600	315	830	440	870	390	3250	470	
PLR 1-1/2	095 086-9907	1,500	1,187	0,625	1,500	0,750	5/8-18	0,750	0,062	0,626	1,000	0,750	0,5	BB	1050	2750	1100	650	1700	595	1570	690	6230	470	
PLR-1-3/4	095 112-9907	1,750	1,187	0,750	1,750	0,875	3/4-16	1,000	0,062	0,751	1,125	0,875	0,8	BB	1050	2750	1100	650	1700	595	1570	690	6230	470	
PLR-1-3/4-5	095 115-9907	1,750	1,437	0,500	0,875	0,750	1/2-13NC	0,625	0,312	0,501	-	-	0,6	BB	1050	2750	1100	650	1700	595	1570	690	4480	470	
PLR-2	095 125-9907	2,000	1,687	0,875	2,000	1,125	7/8-14	1,000	0,062	0,876	1,250	0,875	1,3	BB	1450	3820	1620	905	2380	685	4620	1610	12 500	910	
PLR-2-3	095 126-9907	2,000	1,375	0,875	2,000	1,125	7/8-14	1,000	0,062	0,876	1,250	0,875	1,2	BB	1450	3820	1620	905	2380	685	3530	1630	12 500	910	
PLR-2-1/4	095 152-9907	2,250	1,687	0,875	2,000	1,125	7/8-14	1,000	0,062	0,876	1,250	0,875	1,8	BB	1450	3820	1620	905	2380	685	4620	1610	12 500	910	
PLR-2-1/2	095 160-9907	2,500	1,687	1,000	2,250	1,500	1-14	1,250	0,062	1,001	1,250	0,750	2,3	BB	1980	5180	2270	1215	3185	1540	4170	1900	15 700	1340	
PLR-2-1/2-10	095 164-9907	2,500	1,812	1,000	2,250	1,500	1-14	1,250	0,187	1,001	1,250	0,750	2,3	BB	1980	5180	2270	1215	3185	1540	4570	1900	15 700	1340	
PLR-2-1/2-16	095 165-9907	2,500	1,812	1,000	2,250	1,500	1-14	1,250	0,047	1,001	1,250	0,750	2,3	TRB	4570	10 880	7630	1690	4010	4570	7050	3610	29 920	-	
PLR-2-3/4	095 190-9907	2,750	1,687	1,000	2,250	1,500	1-14	1,250	0,062	1,001	1,250	0,750	2,8	TRB	6000	14 300	20 000	2430	5700	12 000	13 600	6800	43 700	-	
PLR-3	095 200-9907	3,000	2,000	1,250	2,500	1,750	1-1/4-12	1,750	0,062	1,251	1,250	1,000	4,0	TRB	6000	14 300	20 000	2430	5700	12 000	13 600	6800	43 700	-	
PLR-3-1/4	095 245-9907	3,250	2,000	1,250	2,500	1,750	1-1/4-12	1,750	0,062	1,251	1,250	1,000	4,8	TRB	6000	14 300	20 000	2430	5700	12 000	13 600	6800	43 700	-	
PLR-3-1/2	095 248-9907	3,500	2,000	1,250	2,750	1,750	1-1/4-12	1,750	0,062	1,251	1,500	1,250	5,5	TRB	6000	14 300	20 000	2430	5700	12 000	13 600	6800	43 700	-	
PLR-4	095 268-9907	4,000	2,000	1,250	2,750	1,750	1-1/4-12	1,750	0,062	1,251	1,500	1,250	7,1	TRB	6000	14 300	20 000	2430	5700	12 000	13 600	6800	43 700	-	
PLR-4-1/2	095 304-9907	4,500	2,000	1,250	2,750	1,750	1-1/4-12	1,750	0,062	1,251	1,500	1,250	9,0	TRB	13 990	33 290	51 900	5530	13 160	32 500	34 100	18 830	107 670	-	
PLR-5	095 323-9907	5,000	3,000	2,000	4,500	2,500	2-12	3,250	0,062	2,001	2,750	2,000	19,0	TRB	15 100	35 800	56 400	5950	14 200	33 100	72 700	36 300	175 000	-	
PLR-6	095 353-9907	6,000	3,000	2,500	5,500	3,250	2-1/2-12	3,250	0,062	2,501	3,250	2,000	28,0	TRB	15 100	35 800	56 400	5950	14 200	33 100	72 700	36 300	175 000	-	
PLR-7	095 374-9907	7,000	3,000	2,500	5,500	3,250	2-1/2-12	3,250	0,062	2,501	3,250	2,000	36,0	TRB	15 100	35 800	56 400	5950	14 200	33 100	72 700	36 300	175 000	-	
PLR-8	095 386-9907	8,000	3,000	2,500	5,500	3,250	2-1/2-12	3,250	0,062	2,501	3,250	2,000	49,0	TRB	15 100	35 800	56 400	5950	14 200	33 100	72 700	36 300	175 000	-	
PLR-10	095 398-9907	10,000	3,000	2,500	5,500	3,250	2-1/2-12	3,250	0,062	2,501	3,250	2,000	72,0	TRB	34 500	82 200	159 800	16 900	40 100	116 000	214 400	107 200	505 400	-	
PLR-10-1	095 399-9907	10,000	5,000	4,250	9,000	4,000	3-1/2-4NC	5,000	0,125	4,252	5,750	5,125	130,0												

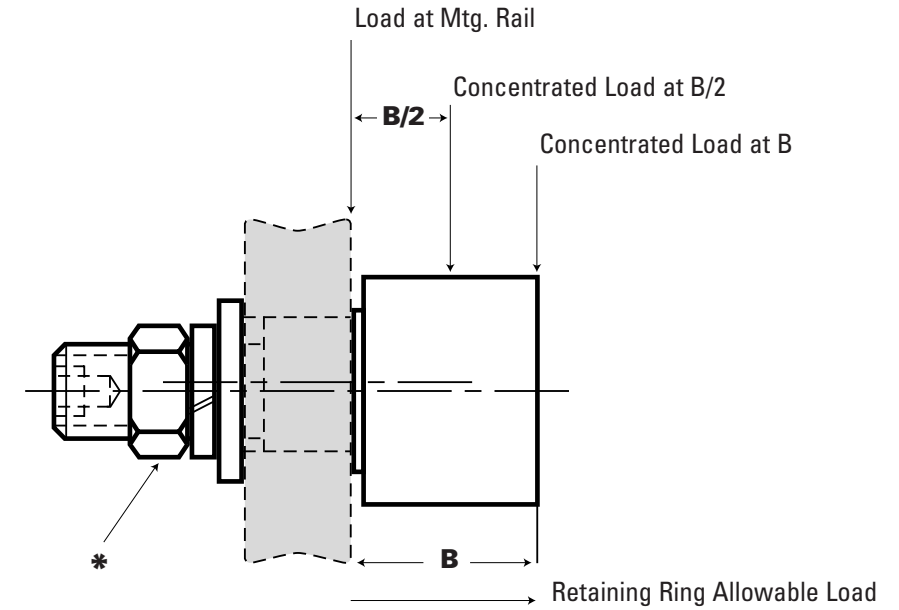
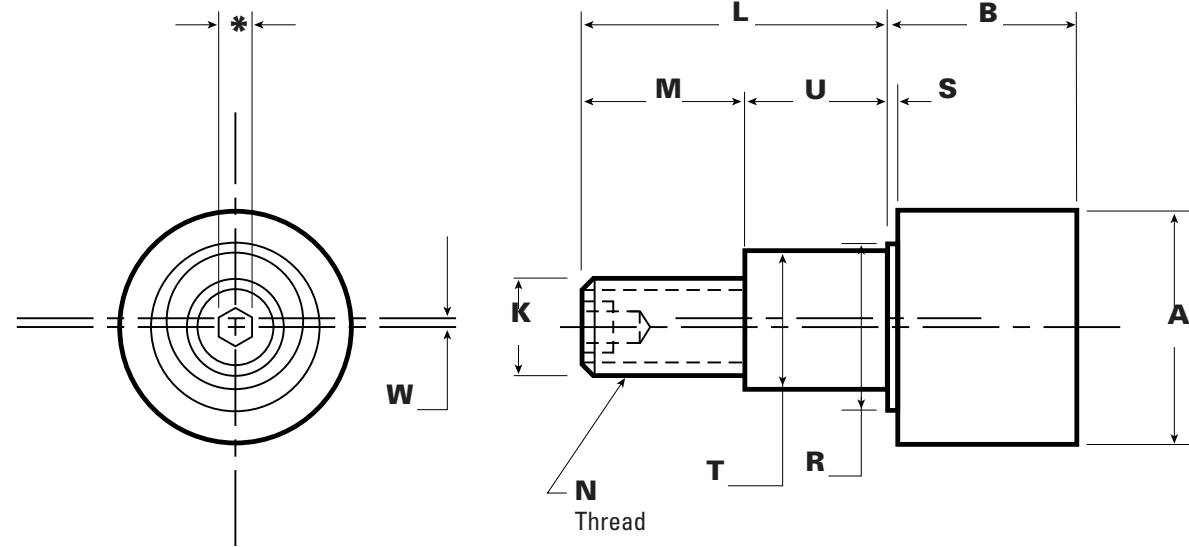
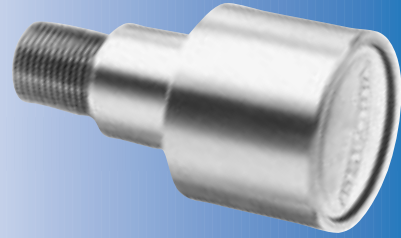
Other dimensions available on request.  
 \* For stud hex socket size, see page 45.  
 Lock washer and jam nut available at additional cost.  
 For size see "N" dimension.  
 For special features and custom design considerations, see page 39.

**Inch Sizes**

\* Lock washer and jam nut available at additional cost.  
 For Size see „N“ dimension.

## Plain Eccentric-Stud Style

- radial and thrust loads
- easy to install
- vertical adjustment



Part No.	EDP No.	Dimensions											Rec. Mtg. Hole Size	Recommended Roller Mounting Member Thickness		Approx. Weight (Lbs)	Ball or Tapered Roller Bearings	Bearing Capacity, Radial Load (Lbs)			Bearing Capacity, Thrust Load (Lbs)			Stud Capacity (Lbs)			Ret. Ring Allow. Load (Lbs)	
		Roller Dia.	Roller Width	Stud Dia.	Stud Length	Thread Length	Thread	Shldr. Dia.	Shldr. Length	Eccent. Dia.	Eccent. Length	Eccent.		+0,001 -0,001	Max.			Min.	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Radial Static Limit	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Limiting Static Thrust	Bending = .75 S <sub>y</sub>			Shear = .75 x .5 x S <sub>y</sub>
																									Concent. Load at B/2	Concent. Load at B		
PLRE-1	097 322-9907	1,000	0,781	0,437	1,000	0,500	7/16-20	0,750	0,031	0,625	0,500	0,030	0,627	0,625	0,500	0,3	BB	235	625	225	145	385	300	450	200	1970	470	
PLRE-1 1/8	097 323-9907	1,125	0,781	0,437	1,000	0,500	7/16-20	0,750	0,031	0,625	0,500	0,030	0,627	0,625	0,500	0,3	BB	235	625	225	145	385	300	450	200	1970	470	
PLRE-1 1/4	097 324-9907	1,250	0,844	0,500	1,250	0,625	1/2-20	0,812	0,031	0,687	0,625	0,030	0,689	0,750	0,625	0,4	BB	515	1350	600	315	830	440	870	390	3250	470	
PLRE-1 3/8	097 325-9907	1,375	0,844	0,500	1,250	0,625	1/2-20	0,812	0,031	0,687	0,625	0,030	0,689	0,750	0,625	0,4	BB	515	1350	600	315	830	440	870	390	3250	470	
PLRE-1 1/2	095 849-9907	1,500	1,188	0,625	1,500	0,770	5/8-18	1,125	1/16	0,875	0,730	0,030	0,877	0,875	0,750	0,6	BB	1050	2750	1100	650	1700	595	1570	690	6230	470	
PLRE-1 3/4	095 853-9907	1,750	1,188	0,750	1,750	0,895	3/4-16	1,240	1/16	1,000	0,855	0,030	1,002	1,000	0,875	0,9	BB	1050	2750	1100	650	1700	595	1570	690	6230	470	
PLRE-2	095 857-9907	2,000	1,688	0,875	2,000	1,020	7/8-14	1,500	1/16	1,187	0,980	0,030	1,189	1,125	1,000	1,6	BB	1450	3820	1620	905	2380	685	4620	1610	12 500	910	
PLRE-2 1/4	095 863-9907	2,250	1,688	0,875	2,000	1,020	7/8-14	1,500	1/16	1,187	0,980	0,030	1,189	1,125	1,000	2,0	BB	1450	3820	1620	905	2380	685	4620	1610	12 500	910	
PLRE-2 1/2	095 869-9907	2,500	1,688	1,000	2,250	1,145	1-14	1,687	1/16	1,375	1,105	0,030	1,377	1,250	1,125	2,5	BB	1980	5180	2270	1215	3185	1540	4170	1900	15 700	1340	
PLRE-2 3/4	095 875-9907	2,750	1,688	1,000	2,250	1,145	1-14	1,687	1/16	1,375	1,105	0,030	1,377	1,250	1,125	3,4	BB	1980	5180	2270	1215	3185	1540	4170	1900	15 700	1340	
PLRE-3	095 876-9907	3,000	2,000	1,250	2,500	1,270	1 1/4-12	2,312	1/16	1,750	1,230	0,060	1,752	1,375	1,250	4,5	TRB	6000	14 300	20 000	2430	5790	12 000	13 600	6800	43 700	-	
PLRE-3 1/4	095 887-9907	3,250	2,000	1,250	2,500	1,270	1 1/4-12	2,312	1/16	1,750	1,230	0,060	1,752	1,375	1,250	5,4	TRB	6000	14 300	20 000	2430	5790	12 000	13 600	6800	43 700	-	
PLRE-3 1/2	095 888-9907	3,500	2,000	1,250	2,750	1,395	1 1/4-12	2,312	1/16	1,812	1,355	0,060	1,814	1,500	1,375	6,5	TRB	6000	14 300	20 000	2430	5790	12 000	13 600	6800	43 700	-	
PLRE-4	095 892-9907	4,000	2,000	1,250	2,750	1,395	1 1/4-12	2,312	1/16	1,812	1,355	0,060	1,814	1,500	1,375	8,3	TRB	6000	14 300	20 000	2430	5790	12 000	13 600	6800	43 700	-	
PLRE-5	095 900-9907	5,000	3,000	2,000	4,500	2,375	2-12	3,250	1/16	2,625	2,125	0,060	2,627	2,500	2,250	21,0	TRB	13 990	33 290	51 900	5530	13 160	32 500	34 100	18 830	107 670	-	
PLRE-6	095 903-9907	6,000	3,000	2,500	5,500	2,625	2 1/2-12	3,625	1/16	3,125	2,875	0,060	3,127	3,250	3,000	30,5	TRB	15 100	35 800	56 400	5950	14 200	33 100	72 700	36 300	175 000	-	

Other dimensions available on request.  
\* For stud hex socket size, see page 45.  
Lock washer and jam nut available at additional cost.  
For size see "N" dimension.  
For special features and custom design considerations, see page 39.

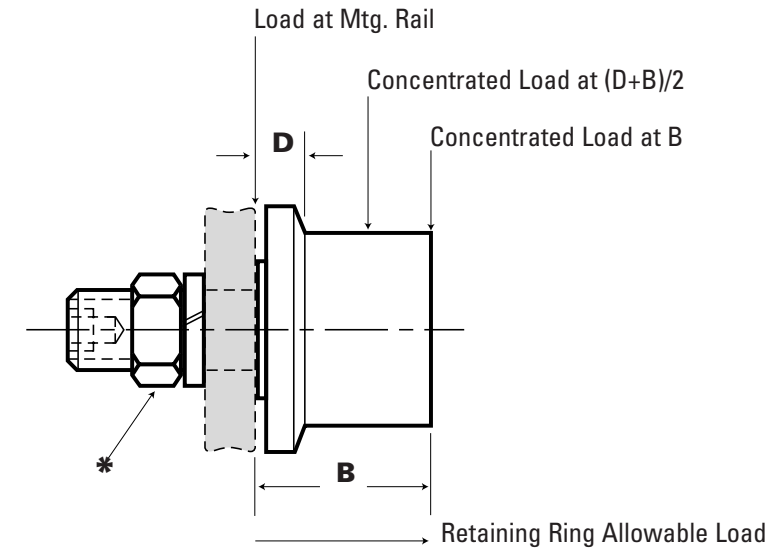
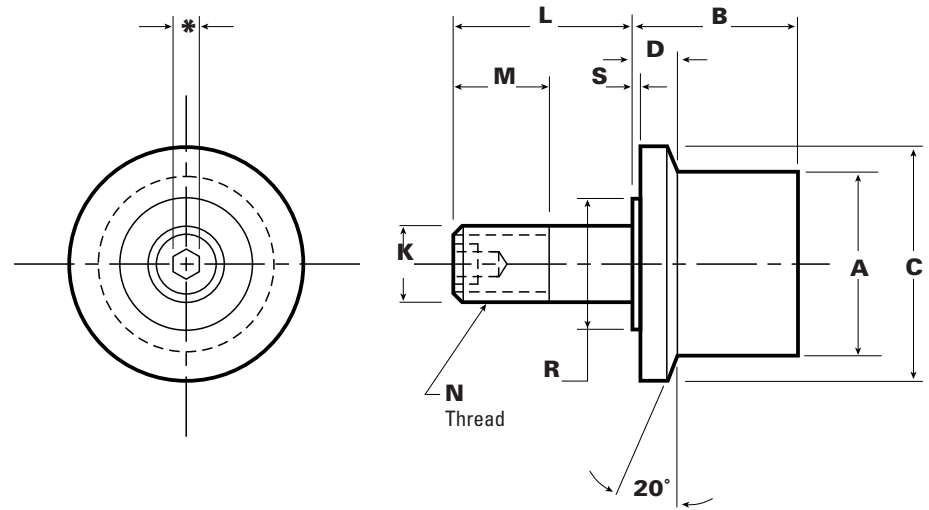
\* Lock washer and jam nut available at additional cost.  
For Size see "N" dimension.

**Inch  
Sizes**

**Flanged-Stude Style**



- radial and thrust loads
- easy to install



Part No.	EDP No.	A Roller Dia.	B Roller Width	C Flange Dia.	D Flange Thickness	K Stud Dia. +0,000 -0,001	L Stud Length	M Thread Length	N Fine Thread	R Shldr. Dia.	S Shldr. Length	Rec. Mtg. Hole Size +0,001 -0,000	Roller Mounting Member Thickness		Approx. Weight (Lbs)	Ball or Tapered Roller Bearings	Bearing Capacity, Radial Load (Lbs)			Bearing Capacity, Thrust Load (Lbs)			Stud Capacity (Lbs)			Ret. Ring Allow. Load (Lbs)
													Max.	Min.			3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Radial Static Limit	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Limiting Static Thrust	Bending=.75 S <sub>y</sub>		Shear = .75 x .5 x S <sub>y</sub>	
																							Concent. Load at (D+B)/2	Concent. Load at B		
													FLR-1	097 326-9907			1,000	0,781	1,375	0,219	0,437	1,000	0,500	7/16-20	0,500	
FLR-1 1/8	097 327-9907	1,125	0,781	1,500	0,219	0,437	1,000	0,500	7/16-20	0,500	0,031	0,438	0,625	0,500	0,3	BB	235	625	225	145	385	300	350	200	1970	470
FLR-1 1/4	097 328-9907	1,250	0,844	1,563	0,219	0,500	1,250	0,625	1/2-20	0,625	0,031	0,501	0,750	0,625	0,4	BB	515	1350	600	315	830	440	680	390	3250	470
FLR-1 3/8	097 329-9907	1,375	0,844	1,688	0,219	0,500	1,250	0,625	1/2-20	0,625	0,031	0,501	0,750	0,625	0,4	BB	515	1350	600	315	830	440	680	390	3250	470
FLR-1 1/2	095 445-9907	1,500	1,188	2,188	0,343	0,625	1,500	0,750	5/8-18	0,750	1/16	0,626	1,000	0,750	0,6	BB	1050	2750	1100	650	1700	595	1150	690	6230	470
FLR-1 1/2-2	095 446-9907	1,500	1,063	2,000	0,343	0,500	1,375	0,750	1/2-20	0,625	1/16	0,501	1,000	0,750	0,5	BB	925	2400	970	570	1485	330	675	455	4300	335
FLR-1 3/4	095 472-9907	1,750	1,188	2,438	0,343	0,750	1,750	0,875	3/4-16	1,000	1/16	0,751	1,125	0,875	1,0	BB	1050	2750	1100	650	1700	595	1150	690	6230	470
FLR-2	095 482-9907	2,000	1,688	2,688	0,593	0,875	2,000	1,125	7/8-14	1,000	1/16	0,876	1,250	0,875	1,8	BB	1450	3820	1620	905	2380	685	2790	1615	12 500	910
FLR-2 1/4	095 498-9907	2,250	1,688	2,938	0,593	0,875	2,000	1,125	7/8-14	1,000	1/16	0,876	1,250	0,875	2,1	BB	1450	3820	1620	905	2380	685	2790	1615	12 500	910
FLR-2 1/2	095 502-9907	2,500	1,688	3,188	0,593	1,000	2,250	1,500	1-14	1,250	1/16	1,001	1,250	0,750	2,8	BB	1980	5180	2270	1215	3185	1540	2935	2590	15 700	1340
FLR-2 1/2-1	095 503-9907	2,500	1,843	2,500	0,625	1,000	2,250	1,500	1-14	1,250	1/16	1,001	1,250	0,750	2,8	TRB	4750	10880	7630	1690	4010	4570	7050	3610	29920	N/A
FLR-2 3/4	095 515-9907	2,750	1,688	3,438	0,593	1,000	2,250	1,500	1-14	1,250	1/16	1,001	1,250	0,750	3,2	BB	1980	5180	2270	1215	3185	1540	2935	2590	15 700	1340
FLR-3	095 520-9907	3,000	2,000	3,938	0,593	1,250	2,500	1,750	1 1/4-12	1,750	1/16	1,251	1,250	1,000	4,7	TRB	6000	14 300	20 000	2430	5790	12 000	10 500	6800	43 700	-
FLR-3 1/4	095 555-9907	3,250	2,000	4,188	0,593	1,250	2,500	1,750	1 1/4-12	1,750	1/16	1,251	1,250	1,000	5,3	TRB	6000	14 300	20 000	2430	5790	12 000	10 500	6800	43 700	-
FLR-3 1/2	095 558-9907	3,500	2,000	4,438	0,593	1,250	2,750	1,750	1 1/4-12	1,750	1/16	1,251	1,250	1,000	6,2	TRB	6000	14 300	20 000	2430	5790	12 000	10 500	6800	43 700	-
FLR-4	095 562-9907	4,000	2,000	4,938	0,593	1,250	2,750	1,750	1 1/4-12	1,750	1/16	1,251	1,250	1,000	7,9	TRB	6000	14 300	20 000	2430	5790	12 000	10 500	6800	43 700	-
FLR-4M	095 567-9907	4,000	2,000	4,938	1,000	1,250	2,750	1,750	1 1/4-12	1,750	1/16	1,251	1,250	1,000	8,1	TRB	6000	14 300	20 000	2430	5790	12 000	9100	6800	43 700	-
FLR-4 1/2	095 591-9907	4,500	2,000	5,438	0,593	1,250	2,750	1,750	1 1/4-12	1,750	1/16	1,251	1,250	1,000	9,9	TRB	6000	14 300	20 000	2430	5790	12 000	10 500	6800	43 700	-
FLR-5	095 601-9907	5,000	3,000	5,938	0,718	2,000	4,500	2,500	2-12	3,250	1/16	2,001	2,750	2,000	18,5	TRB	13 990	33 290	51 900	5530	13 160	32 500	30 100	18 700	111 900	-
FLR-6	095 625-9907	6,000	3,000	6,938	0,718	2,500	5,500	3,250	2 1/2-12	3,250	1/16	2,501	3,250	2,000	29,5	TRB	15 100	35 800	56 400	5950	14 200	33 100	58 800	36 400	175 000	-
FLR-7	095 640-9907	7,000	3,000	7,938	0,718	2,500	5,500	3,250	2 1/2-12	3,250	1/16	2,501	3,250	2,000	38,0	TRB	15 100	35 800	56 400	5950	14 200	33 100	55 100	33 600	175 000	-
FLR-8	095 641-9907	8,000	3,000	8,938	0,718	2,500	5,500	3,250	2 1/2-12	3,250	1/16	2,501	3,250	2,000	46,0	TRB	15 100	35 800	56 400	5950	14 200	33 100	55 100	33 600	175 000	-

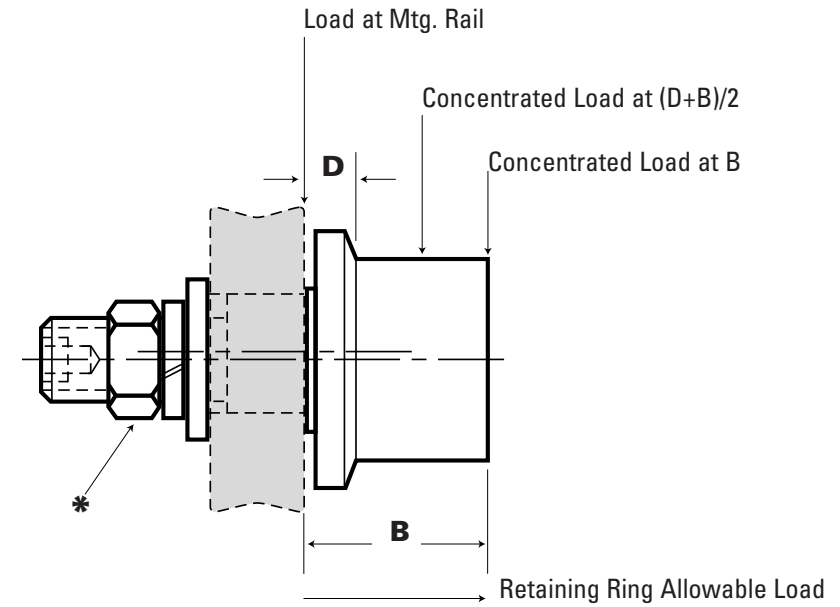
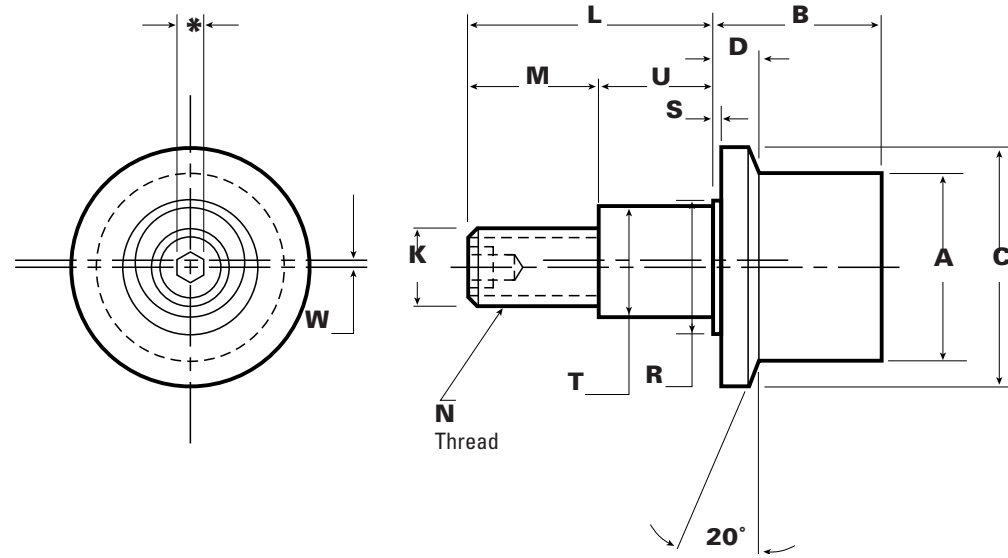
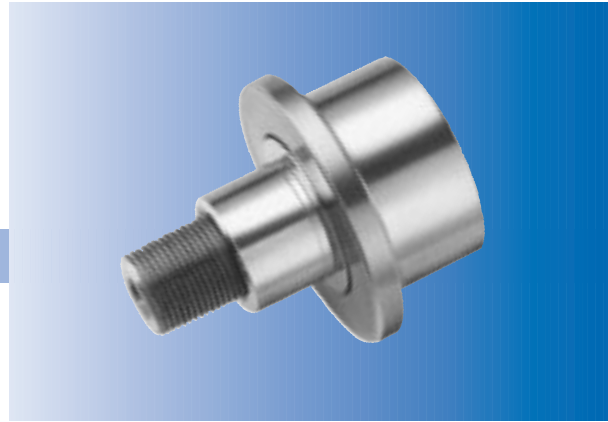
Other dimensions available on request.  
 \* For stud hex socket size, see page 45.  
 Lock washer and jam nut available at additional cost.  
 For size see "N" dimension.  
 For special features and custom design considerations, see page 39.

**Inch Sizes**

\* Lock washer and jam nut available at additional cost.  
 For Size see „N“ dimension.

# Flanged Eccentric-Stude Style

- radial and thrust loads
- easy to install
- vertical adjustment



Part No.	EDP No.	A	B	C	D	K	L	M	N	R	S	T	U	W	Rec. Mtg. Hole Size	Roller Mounting Member Thickness		Approx. Weight (Lbs)	Ball or Tapered Roller Bearings	Bearing Capacity, Radial Load (Lbs)			Bearing Capacity, Thrust Load (Lbs)			Stud Capacity (Lbs)			Ret. Ring Allow. Load (Lbs)
		Roller Dia.	Roller Width	Flange Dia.	Flange Thickness	Stud Dia.	Stud Length	Thread Length	Fine Thread	Shldr. Dia.	Shldr. Length	Eccent. Dia.	Eccent. Length	Eccent.		Max.	Min.			3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Radial Static Limit	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Limiting Static Thrust	Bending=.75 S <sub>y</sub>		Shear = .75 x .5 x S <sub>y</sub>	
												+0,001 -0,001	+0,000 -0,010													Concent. Load at (D+B)/2	Concent. Load at B		
FLRE-1	097 330-9907	1,000	0,781	1,375	0,219	0,437	1,000	0,500	7/16-20	0,750	0,031	0,625	0,500	0,030	0,627	0,625	0,500	0,3	BB	235	625	225	145	385	300	350	200	1970	470
FLRE-1 1/8	097 331-9907	1,125	0,781	1,500	0,219	0,437	1,000	0,500	7/16-20	0,750	0,031	0,625	0,500	0,030	0,627	0,625	0,500	0,4	BB	235	625	225	145	385	300	350	200	1970	470
FLRE-1 1/4	097 332-9907	1,250	0,844	1,563	0,219	0,500	1,250	0,625	1/2-20	0,812	0,031	0,687	0,625	0,030	0,689	0,750	0,625	0,4	BB	515	1350	600	315	830	440	680	390	3250	470
FLRE-1 3/8	097 333-9907	1,375	0,844	1,688	0,219	0,500	1,250	0,625	1/2-20	0,812	0,031	0,687	0,625	0,030	0,689	0,750	0,625	0,5	BB	515	1350	600	315	830	440	680	390	3250	470
FLRE-1 1/2	095 917-9907	1,500	1,187	2,187	0,343	0,625	1,500	0,770	5/8-18	1,125	1/16	0,875	0,730	0,030	0,877	0,875	0,750	0,8	BB	1050	2750	1100	650	1700	595	1150	690	6230	470
FLRE-1 3/4	095 922-9907	1,750	1,187	2,437	0,343	0,750	1,750	0,895	3/4-16	1,240	1/16	1,000	0,855	0,030	1,002	1,000	0,875	1,1	BB	1050	2750	1100	650	1700	595	1150	690	6230	470
FLRE-2	095 924-9907	2,000	1,688	2,687	0,593	0,875	2,000	1,020	7/8-14	1,500	1/16	1,187	0,980	0,030	1,189	1,125	1,000	2,1	BB	1450	3820	1620	905	2380	685	2790	1615	6230	470
FLRE-2 1/4	095 927-9907	2,250	1,688	2,937	0,593	0,875	2,000	1,020	7/8-14	1,500	1/16	1,187	0,980	0,030	1,189	1,125	1,000	2,5	BB	1450	3820	1620	905	2380	685	2790	1615	6230	470
FLRE-2 1/2	095 928-9907	2,500	1,688	3,187	0,593	1,000	2,250	1,145	1-14	1,687	1/16	1,375	1,105	0,030	1,377	1,250	1,125	3,0	BB	1980	5180	2270	1215	3185	1540	2935	2590	15 700	1340
FLRE-2 3/4	095 931-9907	2,750	1,688	3,437	0,593	1,000	2,250	1,145	1-14	1,687	1/16	1,375	1,105	0,030	1,377	1,250	1,125	3,5	BB	1980	5180	2270	1215	3185	1540	2935	2590	15 700	1340
FLRE-3	095 932-9907	3,000	2,000	3,937	0,593	1,250	2,500	1,270	1 1/4-12	2,312	1/16	1,750	1,230	0,060	1,752	1,375	1,250	5,1	TRB	6000	14 300	20 000	2430	5790	12 000	10 500	6800	43 700	-
FLRE-3 1/4	095 939-9907	3,250	2,000	4,187	0,593	1,250	2,500	1,270	1 1/4-12	2,312	1/16	1,750	1,230	0,060	1,752	1,375	1,250	5,8	TRB	6000	14 300	20 000	2430	5790	12 000	10 500	6800	43 700	-
FLRE-3 1/2	095 940-9907	3,500	2,000	4,437	0,593	1,250	2,750	1,395	1 1/4-12	2,312	1/16	1,812	1,355	0,060	1,814	1,500	1,375	6,8	TRB	6000	14 300	20 000	2430	5790	12 000	10 500	6800	43 700	-
FLRE-4	095 941-9907	4,000	2,000	4,937	0,593	1,250	2,750	1,395	1 1/4-12	2,312	1/16	1,812	1,355	0,060	1,814	1,500	1,375	8,5	TRB	6000	14 300	20 000	2430	5790	12 000	10 500	6800	43 700	-
FLRE-5	097 948-9907	5,000	3,000	5,938	0,718	2,000	4,500	2,375	2-12	3,250	0,062	2,625	2,125	0,060	2,627	2,500	2,250	19,5	TRB	13990	33290	51900	5530	13160	32500	26300	18830	107670	-
FLRE-6	097 949-9907	6,000	3,000	6,938	0,718	2,500	5,500	2,625	2 1/2-12	3,625	0,062	3,125	2,875	0,060	3,127	3,250	3,000	32,0	TRB	15100	35800	56400	5950	14200	33100	56100	36300	175000	-

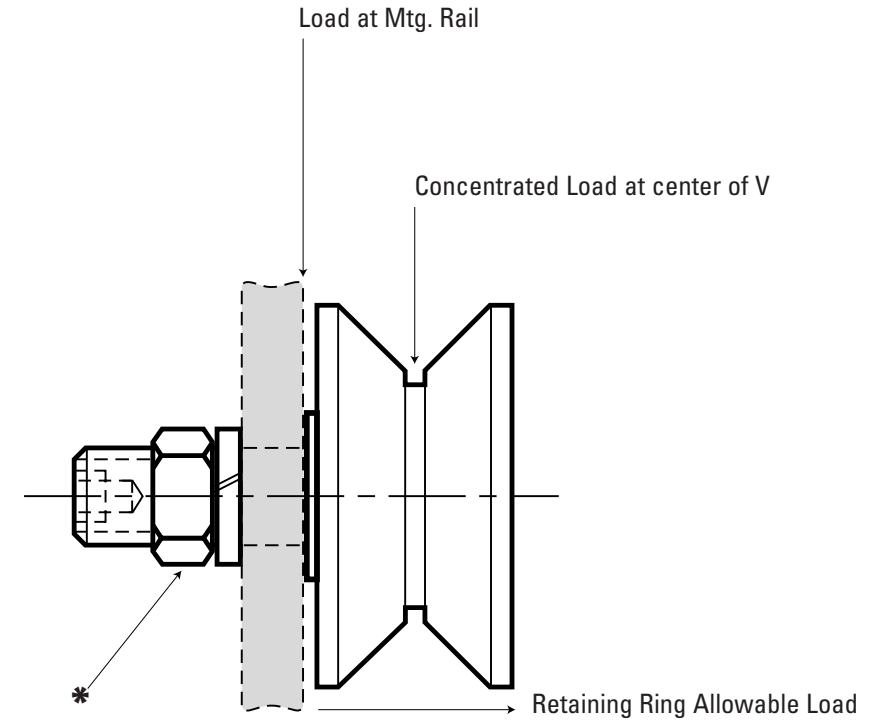
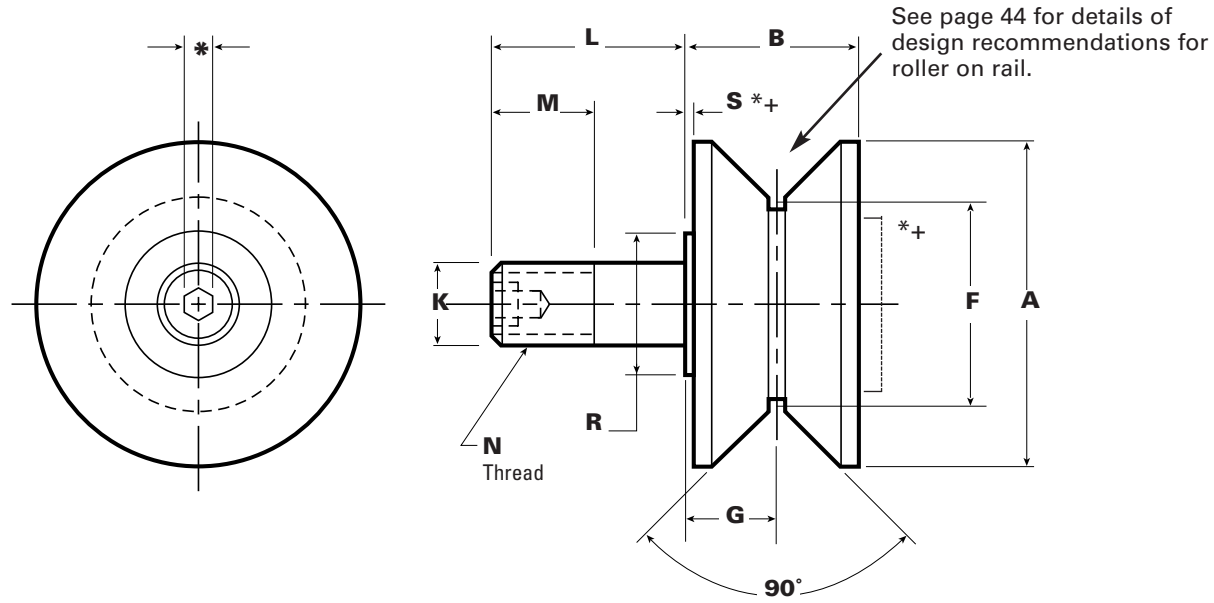
Other dimensions available on request.  
\* For stud hex socket size, see page 45.  
Lock washer and jam nut available at additional cost.  
For size see "N" dimension.  
For special features and custom design considerations, see page 39.

\* Lock washer and jam nut available at additional cost.  
For Size see „N“ dimension.

**Inch Sizes**

## V-Grooved-Stud Style

- radial and thrust loads
- rail profile sheds solid contaminants



Part No.	EDP No.	A Roller Dia.	B Roller Width	F Point Dia.	G Groove Location	K Stud Dia.	L Stud Length	M Thread Length	N Thread	R Shldr. Dia.	S Shldr. Length	Rec. Mtg. Hole Size	Roller Mounting Member Thickness		Approx. Weight (Lbs)	Ball or Tapered Roller Bearings	Bearing Capacity, Radial Load (Lbs)			Bearing Capacity, Thrust Load (Lbs)			Stud Capacity (Lbs)		Ret. Ring Allow. Load (Lbs)
													Max.	Min.			3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Radial Static Limit	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Limiting Static Thrust	Bending=.75 S <sub>y</sub>	Shear = .75 x .5 x S <sub>y</sub>	
																							Concent. Load at V	Load at Mtg. Rail	
VLR-1 1/2	097 334-9907	1,500	0,781	1,125	0,391	0,437	1,000	0,500	7/16-20	0,500	0,031	0,438	0,750	0,625	0,5	BB	235	625	225	145	385	300	470	1970	470
VLR-2	097 335-9907	2,000	0,844	1,375	0,422	0,500	1,250	0,625	1/2-20	0,625	0,031	0,500	0,875	0,750	0,6	BB	515	1350	600	315	830	440	920	3250	470
VLR-2 1/2	095 660-9907	2,500	1,312	1,500	0,687	0,750	1,750	0,875	3/4-16	1,000	1/16	0,751	1,125	0,875	1,3	BB	1050	2750	1100	650	1700	595	1310	6230	470
VLR-3 1/2	095 678-9907	3,500	1,687	2,250	0,875	0,875	2,000	1,125	7/8-14	1,000	1/16	0,876	1,250	0,875	3,4	BB	1980	5180	2270	1215	3185	1540	3990	15 700	1340
+ VLR-3 1/2-16	095 685-9907	3,500	1,890	2,250	0,875	0,750	2,000	1,125	3/4-16	1,250	1/16	0,751	1,250	0,875	3,4	TRB	5030	12 000	7200	1340	3190	3150	3370	43 700	-
VLR-4 1/2	095 729-9907	4,500	2,000	3,000	1,000	1,250	2,500	1,750	1 1/4-12	1,750	1/16	1,251	1,250	1,000	7,0	TRB	6000	14 300	20 000	2430	5790	12 000	13 700	43 700	-
VLR-5 1/2	095 760-9907	5,500	2,000	4,000	1,000	1,250	2,750	1,750	1 1/4-12	1,750	1/16	1,251	1,500	1,250	10,5	TRB	6000	14 300	20 000	2430	5790	12 000	13 700	43 700	-
VLR-6 1/2	095 770-9907	6,500	3,000	5,000	1,500	2,000	4,500	2,500	2-12	3,250	1/16	2,001	3,000	2,000	25,5	TRB	15 100	35 800	56 400	5380	12 800	33 100	37 300	43 700	-
VLR-7 1/2	095 777-9907	7,500	3,000	6,000	1,500	2,500	5,500	3,250	2 1/2-12	3,250	1/16	2,501	3,250	2,250	37,0	TRB	15 100	35 800	56 400	5380	12 800	33 100	72 900	175 000	-
VLR-8 1/2	095 782-9907	8,500	3,000	7,000	1,500	2,500	5,500	3,250	2 1/2-12	3,250	1/16	2,501	3,250	2,250	46,0	TRB	15 100	35 800	56 400	5380	12 800	33 100	72 900	175 000	-

+ On Part No. VLR-31/2-16, shoulder with is 1/8" and stud extends 7/64" beyond outer end of roller.

Other dimensions available on request.

\* For stud hex socket size, see page 45.

Lock washer and jam nut available at additional cost.

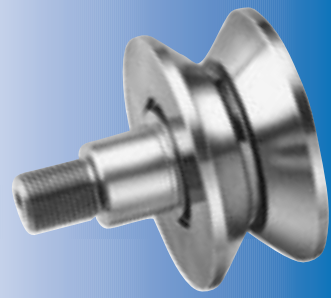
For size see "N" dimension.

For special features and custom design considerations, see page 39.

\* Lock washer and jam nut available at additional cost.

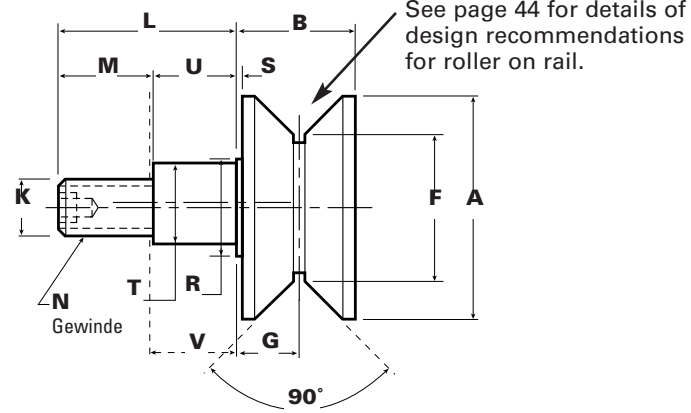
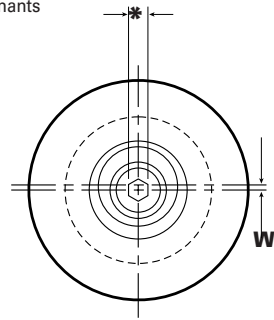
For Size see "N" dimension.

**Inch Sizes**



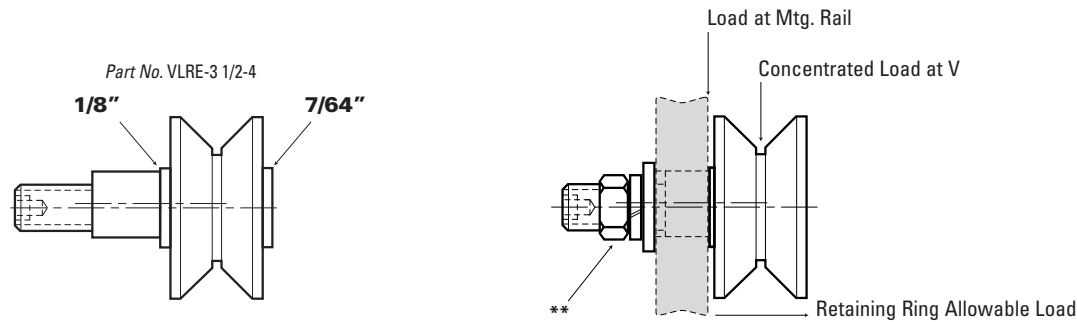
## V-Grooved Eccentric-Stude Style

- radial and thrust loads
- rail profile sheds solid contaminants
- vertical adjustment



See page 44 for details of design recommendations for roller on rail.

Part No.	EDP No.	Roller Dia.	Roller Width	Point Dia.	Groove Location	Stud Dia.	Stud Length	Thread	Shldr. Dia.	Shldr. Length	Eccent. Dia.	Eccent. Length	Eccent.	Rec. Mtg. Hole Size	Recommended Roller Mounting Member Thickness	
															Max.	Min.
VLRE-1 1/2	097 336-9907	1,500	0,731	1,125	0,391	0,437	1,000	0,500	7/16-20	0,750	0,031	0,625	0,500	0,627	0,625	0,500
VLRE-2	097 337-9907	2,000	0,844	1,375	0,422	0,500	1,250	0,625	1/2-20	0,812	0,031	0,687	0,625	0,689	0,750	0,625
VLRE-2 1/2	095 958-9907	2,500	1,312	1,500	0,687	0,750	1,750	0,895	3/4-16	1,375	1/16	1,000	0,855	1,002	1,000	0,875
VLRE-3 1/2	095 970-9907	3,500	1,687	2,250	0,875	0,875	2,000	1,020	7/8-14	1,500	1/16	1,187	0,980	1,189	1,125	1,000
VLRE-3 1/2-4	095 973-9907	3,500	1,890	2,250	0,875	0,750	2,000	1,020	3/4-16	1,500	1/16	1,187	0,980	1,189	1,125	1,000
VLRE-4 1/2	095 986-9907	4,500	2,000	3,000	1,000	1,250	2,500	1,270	1 1/4-12	2,310	1/16	1,750	1,230	1,752	1,375	1,250



Part No.	Ball or Tapered Roller Bearings	Bearing Capacity, Radial Load (Lbs)			Bearing Capacity, Thrust Load (Lbs)			Stud Capacity (Lbs)		Ret. Ring Allow. Load (Lbs)	Approx. Weight (Lbs)
		3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Radial Static Limit	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Limiting Static Thrust	Bending = .75 S <sub>y</sub>	Shear = .75 x .5 x S <sub>y</sub>		
								Concent. Load at V	Load at Mtg. Rail		
VLRE-1 1/2	BB	235	625	225	145	385	300	470	1970	470	0,5
VLRE-2	BB	515	1350	600	315	830	440	920	3250	470	0,6
VLRE-2 1/2	BB	1050	2750	1100	650	1700	595	1310	6230	470	1,4
VLRE-3 1/2	BB	1980	5180	2270	1215	3185	1540	3990	15 700	1340	3,4
VLRE-3 1/2-4	TRB	5030	12 000	7200	1490	3540	3150	4160	15 700	-	3,6
VLRE-4 1/2	TRB	6000	14 300	20 000	3430	5790	12 000	16 800	43 700	-	7,3

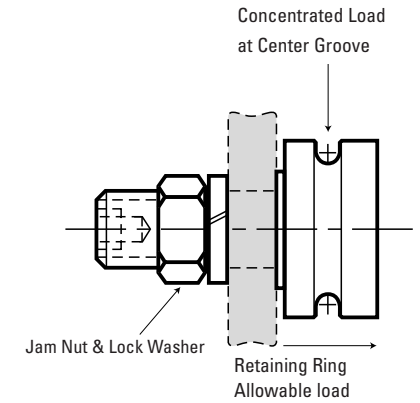
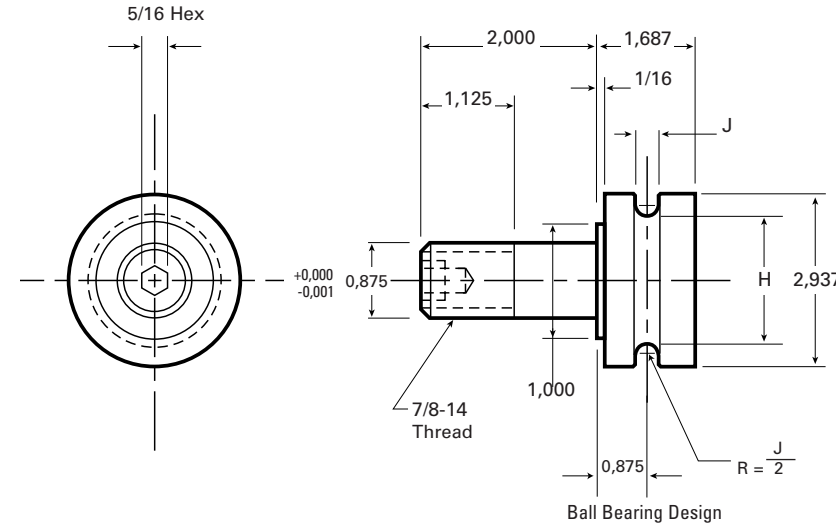
\* For stud hex size see page 45.  
 \*\* Lock washer and jam nut available at additional cost.  
 For size see „N“ dimension.  
 For special features and custom design considerations, see page 39.

**Inch Sizes**

## U-Grooved-Stude Style



- wire guides
- idler pulleys
- easy to install



Part No.	EDP No.	Groove Dia.	Groove Width	Rec. Mtg. Hole Size	Recommended Roller Mounting Member Thickness		Bearing Capacity, Radial Load (Lbs)			Bearing Capacity, Thrust Load (Lbs)			Stud Capacity (Lbs)	Ret. Ring Allow. Load (Lbs)	Approx. Weight (Lbs)	
					Max.	Min.	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Radial Static Limit	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Limiting Static Thrust				Concent. Load at Center of Groove
ULR-215/16-A	095 789-9907	2,312	0,263	0,876	1,250	0,875	1980	5180	2270	1,215	3185	1540	3990	1340	3,0	
ULR-215/16-B	095 790-9907	2,312	0,242	0,876	1,250	0,875	1980	5180	2270	1,215	3185	1540	3990	1340	3,0	
ULR-215/16-C	095 791-9907	2,375	0,224	0,876	1,250	0,875	1980	5180	2270	1,215	3185	1540	3990	1340	3,0	
ULR-215/16-D	095 792-9907	2,375	0,207	0,876	1,250	0,875	1980	5180	2270	1,215	3185	1540	3990	1340	3,0	
ULR-215/16-E	095 793-9907	2,437	0,184	0,876	1,250	0,875	1980	5180	2270	1,215	3185	1540	3990	1340	3,0	
ULR-215/16-F	095 794-9907	2,500	0,169	0,876	1,250	0,875	1980	5180	2270	1,215	3185	1540	3990	1340	3,0	
ULR-215/16-G	095 795-9907	2,500	0,152	0,876	1,250	0,875	1980	5180	2270	1,215	3185	1540	3990	1340	3,0	
ULR-215/16-H	095 796-9907	2,562	0,138	0,876	1,250	0,875	1980	5180	2270	1,215	3185	1540	3990	1340	3,0	
ULR-215/16-I	095 797-9907	2,625	0,124	0,876	1,250	0,875	1980	5180	2270	1,215	3185	1540	3990	1340	3,0	
ULR-215/16-J	095 798-9907	2,625	0,113	0,876	1,250	0,875	1980	5180	2270	1,215	3185	1540	3990	1340	3,0	

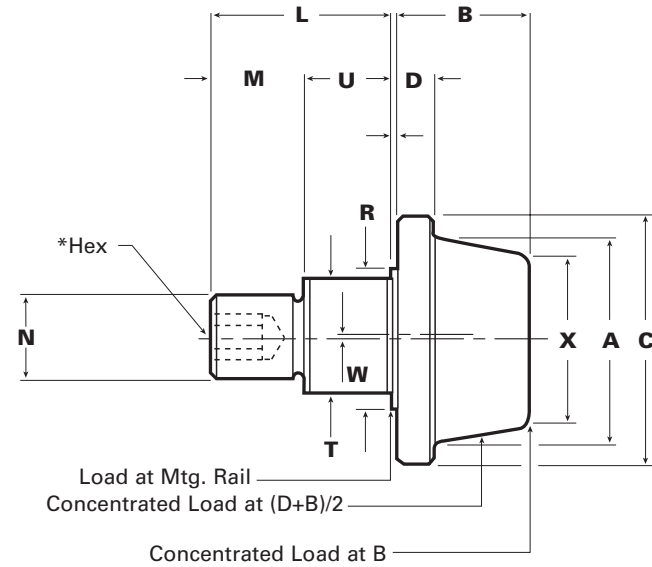
Other dimensions available on request.  
 Lock washer and jam nut available at additional cost.

**Inch Sizes**



## Flanged Crown Style

- concentric and eccentric
- radial and thrust loads
- use on channels and I-beams



Part No.	EDP No.	A	B	C	D	K	L	M	N	R	T	U	W	X	Rec. Mtg. Hole Size	Recommended Roller Mounting Member Thickness	
		Roller Dia.	Roller Width	Flange Diameter	Flange Thickness	Stud Dia.	Stud Length	Thread Length	Thread	Shldr. Dia.	Eccent. Dia.	Eccent. Length	Eccent.	Minor Diameter		+0,001 -0,000	Max.
FLRC-2 1/2	097 531-9907	2,500	1,688	3,000	0,500	1,000	2,250	1,500	1-14	1,250	-	-	-	2,062	1,001	1,250	0,750
FLRCE-2 1/2	096 100-9907	2,500	1,688	3,000	0,500	1,000	2,250	1,145	1-14	1,687	1,375	1,105	0,030	2,062	1,377	1,250	1,125
FLRC-3	097 533-9907	3,000	1,812	3,938	0,593	1,000	2,250	1,500	1-14	1,250	-	-	-	2,562	1,001	1,250	0,750
FLRCE-3	097 534-9907	3,000	1,812	3,938	0,593	1,000	2,250	1,145	1-14	1,687	1,375	1,105	0,030	2,562	1,377	1,250	1,125
FLRC-4	096 057-9907	4,000	2,000	4,938	0,593	1,250	2,750	1,750	1-1/4-12	1,750	-	-	-	3,312	1,251	1,250	1,000
FLRCE-4	097 535-9907	4,000	2,000	4,938	0,593	1,250	2,750	1,395	1-1/4-12	2,312	1,812	1,355	0,060	3,312	1,814	1,500	1,375

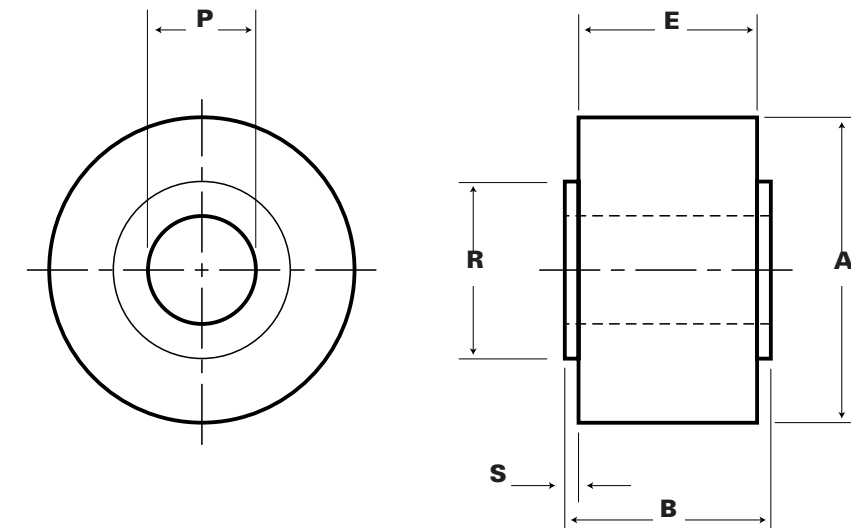
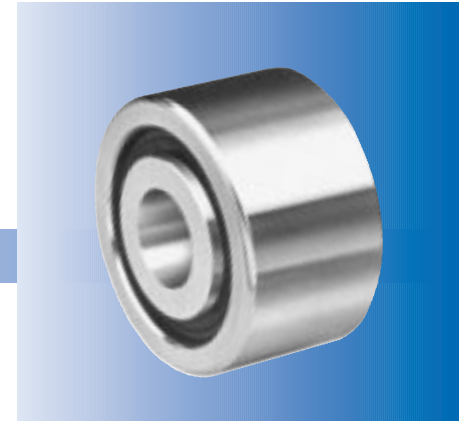
Part No.	Ball or Tapered Roller Bearings	Bearing Capacity, Radial Load (Lbs)			Bearing Capacity, Thrust Load (Lbs)			Stud Capacity (Lbs)			Ret. Ring Allow. Load (Lbs)	Approx. Weight (Lbs)
		3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Radial Static Limit	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Limiting Static Thrust	Bending = .75 S <sub>y</sub>		Shear = .75 x .5 x S <sub>y</sub>		
								Concent. Load at V	Concent. Load at B			
FLRC-2 1/2	BB	1980	5180	2270	1215	3185	1540	2935	2590	15700	1340	2,8
FLRCE-2 1/2	BB	1980	5180	2270	1215	3185	1540	2935	2590	15700	1340	3,0
FLRC-3	TRB	4570	10880	7630	1690	4010	4570	7050	3610	29920	-	4,7
FLRCE-3	TRB	4570	10880	7630	1690	4010	4570	7050	3610	29920	-	5,1
FLRC-4	TRB	6000	14300	20000	2430	5790	12000	10500	6800	43700	-	7,9
FLRCE-4	TRB	6000	14300	20000	2430	5790	12000	10500	6800	43700	-	8,5

Other sizes available on request.  
\* For stud hex socket size, see page 45.  
Spannmutter und Sicherungsscheibe gegen Aufpreis lieferbar.  
Abmessungen gemäß „N“.

**Inch Sizes**

## Plain-Yoke-Style

- radial and thrust loads
- higher capacity than stud style



Part No.	EDP No.	A	B	E	P		R	S	Tapered Roller Bearings	Bearing Capacity, Radial Load (Lbs)			Bearing Capacity, Thrust Load (Lbs)			Approx. Weight (Lbs)
		Roller Dia.	Roller Width	Tread Width	Bore		Shldr. Dia.	Shldr. Length		3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Radial Static Limit	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Limiting Static Thrust	
PLRY-2 1/2	096 117-9907	2,500	1,562	1,500	0,750		1,250	0,031	TRB	4570	10 880	7630	1690	4010	4570	2,0
PLRY-3	096 118-9907	3,000	1,812	1,750	1,000		1,750	0,031	TRB	6000	14 300	20 000	2430	5790	12 000	2,6
PLRY-3 1/4	096 133-9907	3,250	1,812	1,750	1,000	0,0005	1,750	0,031	TRB	6000	14 300	20 000	2430	5790	12 000	3,4
PLRY-3 1/2	096 138-9907	3,500	2,062	2,000	1,125	-0,0000	2,000	0,031	TRB	7390	17 600	27 200	2420	5750	13 100	4,2
PLRY-4	096 144-9907	4,000	2,312	2,250	1,250		2,250	0,031	TRB	7390	17 600	27 200	2420	5750	13 100	6,6
PLRY-5	096 154-9907	5,000	2,875	2,750	1,750		3,500	0,062	TRB	13 990	33 290	51 900	5530	13 160	32 500	11,3
PLRY-6	096 165-9907	6,000	3,375	3,250	2,250		3,500	0,062	TRB	15 100	35 800	56 400	5950	14 200	33 100	19,4
PLRY-7	096 177-9907	7,000	3,875	3,750	2,750		4,250	0,062	TRB	17 800	42 400	79 800	7290	17 400	48 400	29,3
PLRY-8	096 184-9907	8,000	4,500	4,250	3,255	+0,001	4,750	0,125	TRB	35 200	83 700	159 800	16 400	39 000	110 000	43,9
PLRY-9	096 194-9907	9,000	5,000	4,750	3,755	-0,000	5,500	0,125	TRB	56 600	135 000	250 000	22 500	53 600	147 000	51,6
PLRY-10	096 197-9907	10,000	5,500	5,250	4,255		6,500	0,125	TRB	58 200	138 000	276 000	27 900	66 400	196 000	80,0

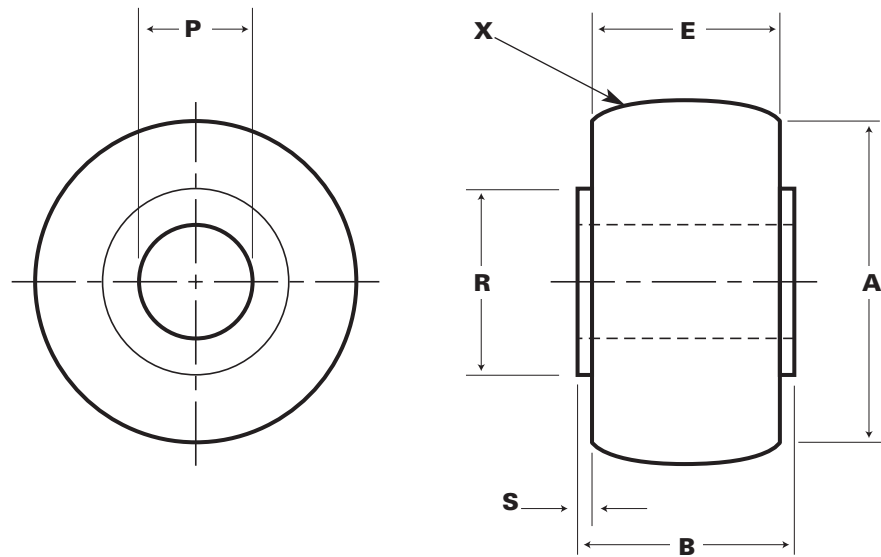
Other dimensions available on request.  
For special features and custom design considerations, see page 39.  
Heavy-duty shafts, see page 20 - 21.

**Inch Sizes**



## Crowned-Yoke Style

- radial and thrust loads
- higher capacity than stud style



Part No.	EDP No.	A		B		E		P		R	S	X	Bearing Capacity, Radial Load (Lbs)			Bearing Capacity, Thrust Load (Lbs)			Approx. Weight (Lbs)
		Roller Dia.	Roller Width	Tread Width	Bore	Shldr. Dia.	Shldr. Length	Crown Radius	3000 Hrs. L <sub>10</sub> Life @ 100 RPM				500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Radial Static Limit	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Limiting Static Thrust		
		+0,00 -0,001	+0,005 -0,010		Max.	Tol.													
CLRY-3	096 307-9907	3,000	1,812	1,750	1,000		1,750	0,031	30	Kegel	6000	14300	20000	2430	5790	12000	2,6		
CLRY-3 1/4	097 204-9907	3,250	1,812	1,750	1,000	+0,005	1,750	0,031	30	Kegel	6000	14300	20000	2430	5790	12000	3,4		
CLRY-3 1/2	097 568-9907	3,500	2,062	2,000	1,125	-0,000	2,000	0,031	30	Kegel	7390	17600	27200	2420	5750	13100	4,2		
CLRY-4	096 312-9907	4,000	2,312	2,250	1,250		2,250	0,031	30	Kegel	7390	17600	27200	2420	5750	13100	6,6		
CLRY-5	097 569-9907	5,000	2,875	2,750	1,750		3,500	0,062	48	Kegel	13990	33290	51900	5530	13160	32500	11,3		
CLRY-6	096 320-9907	6,000	3,375	3,250	2,250		3,500	0,062	56	Kegel	15100	35800	56400	5950	14200	33100	19,4		
CLRY-7	097 570-9907	7,000	3,875	3,750	2,750		4,250	0,062	60	Kegel	17800	42400	79800	7290	17400	48400	29,3		
CLRY-8	096 327-9907	8,000	4,500	4,250	3,255	+0,001	4,750	0,125	40	Kegel	35200	83700	159800	16400	39000	110000	43,9		
CLRY-9	097 571-9907	9,000	5,000	4,750	3,755	-0,000	5,500	0,125	40	Kegel	56600	135000	250000	22500	53600	147000	51,6		
CLRY-10	097 572-9907	10,000	5,500	5,250	4,255		6,500	0,125	40	Kegel	58200	138000	276000	27900	66400	196000	80,0		

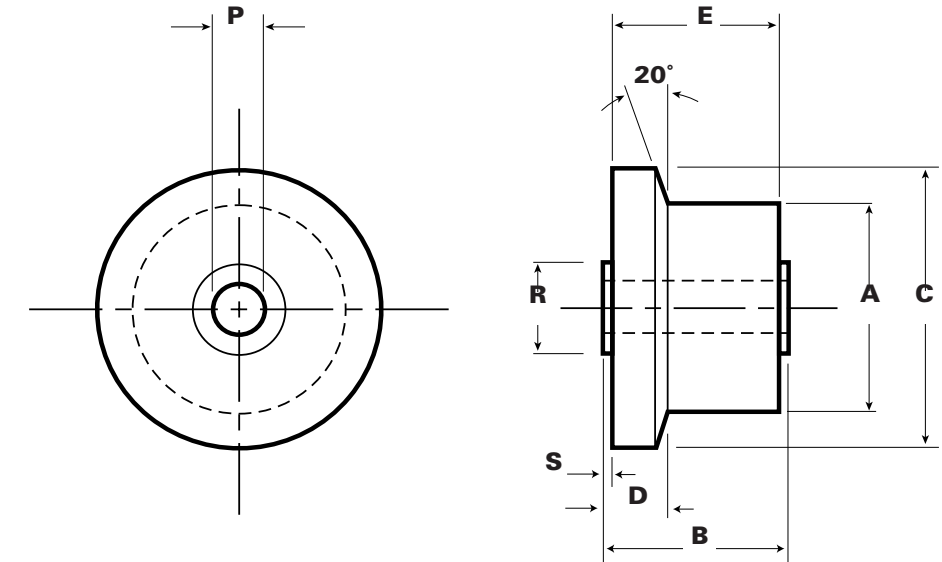
Other dimensions available on request.  
For special features and custom design considerations, see page 39.  
Heavy-duty shafts, see page 20 - 21.

**Inch Sizes**



## Flanged-Yoke Style

- radial and thrust loads
- higher capacity than stud style



Part No.	EDP No.	A		B		C		D		E		P		R	S	Bearing Capacity, Radial Load (Lbs)			Bearing Capacity, Thrust Load (Lbs)			Approx. Weight (Lbs)
		Roller Dia.	Tread Width	Flange Dia.	Flange Thickness	Roller Width	Bore	Shldr. Dia.	Shldr. Length	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Radial Static Limit	3000 Hrs. L <sub>10</sub> Life @ 100 RPM			500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Limiting Static Thrust					
			+0,005 -0,010							Max.	Tol.											
FLRY-2 1/2	096 652-9907	2,500	1,562	3,187	0,500	1,500	0,750					1,250	0,031	Kegel	4570	10 880	7630	1690	4010	4570	2,4	
FLRY-3	096 220-9907	3,000	1,812	3,937	0,590	1,750	1,000					1,750	0,031	Kegel	6000	14 300	20 000	2430	5790	12 000	3,5	
FLRY-3 1/4	096 225-9907	3,250	1,812	4,187	0,590	1,750	1,000	+0,005				1,750	0,031	Kegel	6000	14 300	20 000	2430	5790	12 000	4,3	
FLRY-3 1/2	096 227-9907	3,500	2,062	4,437	0,590	2,000	1,125	-0,000				2,000	0,031	Kegel	7390	17 600	27 200	2420	5750	13 100	5,2	
FLRY-4	096 229-9907	4,000	2,312	4,937	0,590	2,250	1,250					2,250	0,031	Kegel	7390	17 600	27 200	2420	5750	13 100	7,7	
FLRY-5	096 231-9907	5,000	2,875	5,937	0,720	2,750	1,750					3,500	0,062	Kegel	13 990	33 290	51 900	5530	13 160	32 500	12,9	
FLRY-6	096 237-9907	6,000	3,375	6,937	0,720	3,250	2,250					3,500	0,062	Kegel	15 100	35 800	56 400	5950	14 200	33 100	21,4	
FLRY-7	096 241-9907	7,000	3,875	7,937	0,720	3,750	2,750					4,250	0,062	Kegel	17 800	42 400	79 800	7290	17 400	48 400	31,7	
FLRY-8	096 243-9907	8,000	4,500	8,937	0,720	4,250	3,255	+0,001				4,750	0,125	Kegel	35 200	83 700	159 800	16 400	39 000	110 000	46,6	
FLRY-9	096 246-9907	9,000	5,000	9,937	0,720	4,750	3,755	-0,000				5,500	0,125	Kegel	56 600	135 000	250 000	22 500	53 600	147 000	54,6	
FLRY-10	096 250-9907	10,000	5,500	10,937	0,720	5,250	4,255					6,500	0,125	Kegel	58 200	138 000	276 000	27 900	66 400	196 000	83,4	

Other dimensions available on request.  
For special features and custom design considerations, see page 39.  
Heavy-duty shafts, see page 20 - 21.

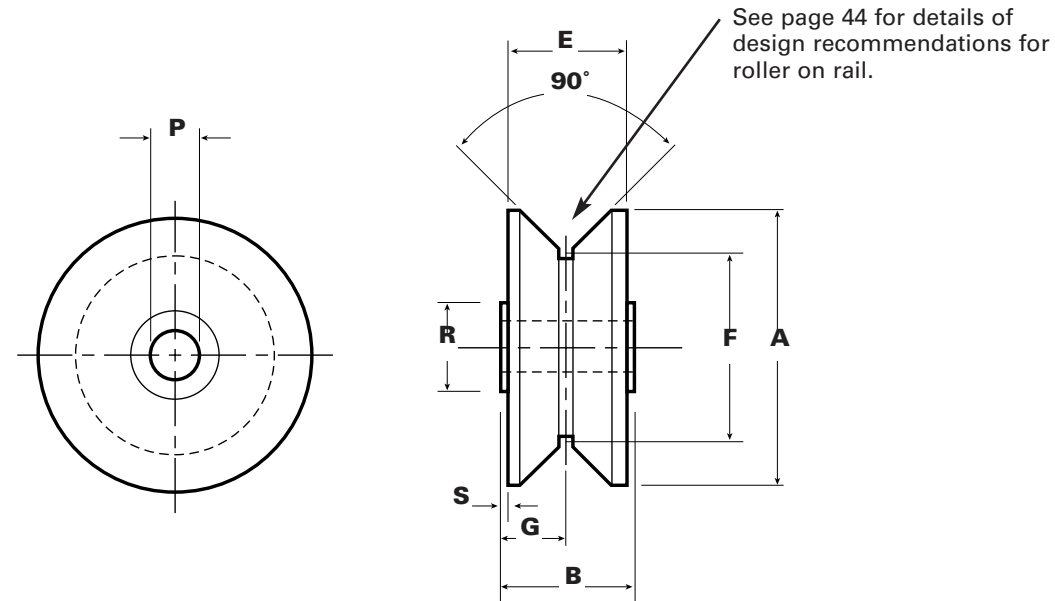
**Inch Sizes**

## V-Grooved-Yoke Style

- radial and thrust loads
- higher capacity than stud style
- rail profile sheds solid contaminants



## Custom Designs and Special Features



Part No.	EDP No.	Roller		Tread Width	Point Dia	Groove Location	Bore		Shldr. Dia.	Shldr. Length	Tapered Roller Bearings	Bearing Capacity, Radial Load (Lbs)			Bearing Capacity, Thrust Load (Lbs)			Approx. Weight (Lbs)
		Dia.	Width				Max.	Tol.				3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Radial Static Limit	3000 Hrs. L <sub>10</sub> Life @ 100 RPM	500 Hrs. L <sub>10</sub> Life @ 33 1/3 RPM	Limiting Static Thrust	
VLRY-3 3/4	096 655-9907	3,750	1,562	1,500	2,500	0,781	0,750		1,250	0,031	Kegel	4570	10 880	7630	1690	4010	4570	4,0
VLRY-4 1/2	096 266-9907	4,500	1,812	1,750	3,000	0,906	1,000		1,750	0,031	Kegel	6000	14 300	20 000	2430	5790	12 000	5,0
VLRY-5	096 279-9907	5,000	2,062	2,000	3,500	1,030	1,125		2,000	0,031	Kegel	7390	17 600	27 200	2430	5790	13 100	7,6
VLRY-5 1/2	096 283-9907	5,500	2,312	2,250	4,000	1,156	1,250	+0,005 -0,000	2,250	0,031	Kegel	7890	17 600	27 200	2420	5750	13 100	11,2
VLRY-6 1/2	096 287-9907	6,500	2,875	2,750	5,000	1,437	1,750		3,500	0,062	Kegel	15 100	35 800	44 600	5950	14 200	22 300	18,8
VLRY-7 1/2	096 291-9907	7,500	3,375	3,250	6,000	1,687	2,250		3,500	0,062	Kegel	15 100	35 800	52 600	5950	14 200	26 300	30,5
VLRY-8 1/2	096 292-9907	8,500	3,875	3,750	7,000	1,937	2,750		4,250	0,062	Kegel	17 800	42 400	60 300	7290	17 400	30 100	44,7
VLRY-9 1/2	096 297-9907	9,500	4,500	4,250	8,000	2,250	3,255		4,750	0,125	Kegel	35 200	*	68 000	16 400	*	34 000	64,2
VLRY-10 1/2	096 300-9907	10,500	5,000	4,750	9,000	2,500	3,755	+ .001 - .000	5,500	0,125	Kegel	56 600	*	75 700	22 500	*	37 800	77,5
VLRY-11 1/2	096 302-9907	11,500	5,500	5,250	10,000	2,750	4,255		6,500	0,125	Kegel	58 200	*	83 600	27 900	*	41 800	112,2

Other dimensions available on request.  
For special features and custom design considerations, see page 39.  
Heavy-duty shafts, see page 20 - 21.  
\*Exceeds static capacity

In addition to the standard Load Runner idler-rollers listed on the previous page, custom tread profiles, studs and special features are available.

1. Crowned profiles
2. Flanged crowned profiles
3. Double-flange rollers
4. Stainless steel treads, studs
5. Special plating (zinc, chrome etc.)
6. Non-metallic tread materials (urethane etc.)
7. Special seals
8. Special lubricants
9. Provision for re-lubrication

Consult Osborn International with special features or requirements not listed here.

### Operation in Severe Environments

**Temperature Extremes**  
Standard Load Runners idler-rollers are designed to operate in temperatures ranging from -30° F to +225° F (-34° C to +107° C).  
Operation in extreme temperature environments as low as -40°F (-40°C) and as high as +400°F (+204°C) requires special seals and / or lubrication provisions.



**Moisture Extremes**  
Operation in wash-down or similar extreme-moisture environments may also require special lubrication provisions.  
Consult Osborn International for application assistance.

**Bearing Disassembly (If Required)**  
Tapered-roller-bearing assemblies used in Load Runners idler-rollers are pre-set with custom-ground spacers for the correct running clearance. If for some reason, a bearing assembly is removed and then reassembled, the same cups, cones and spacers must be used.  
Bearing assembly components cannot be mixed and matched. Even new cups or cones cannot be substituted in an existing assembly.

**Osborn does not recommend disassembly and does not provide component parts.**

**Inch Sizes**

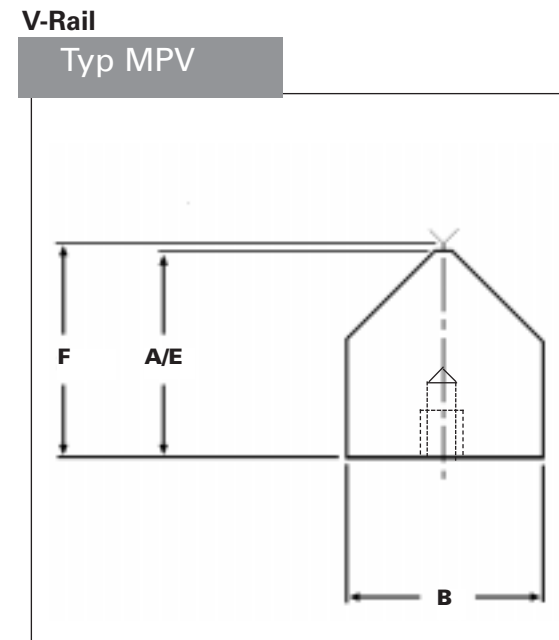
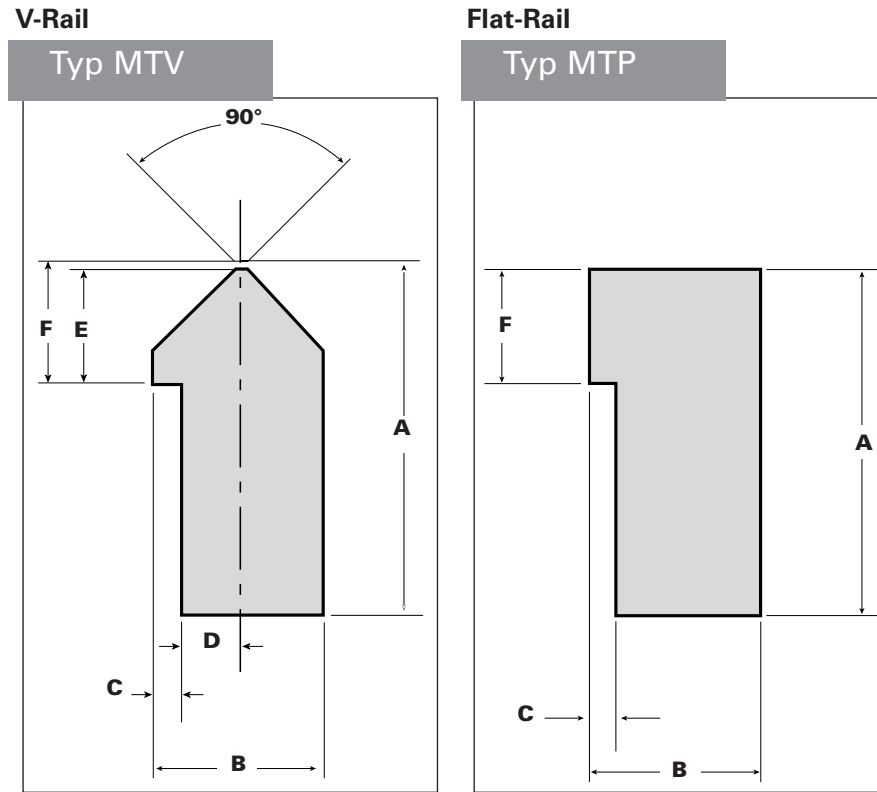
**Load Rail-Spezifikationen**

Osborn Load Rails offer allowable rail loadings of up to 317450 N per roller for maximum design flexibility. They are available in carbon steel in two separate hardness ranges and also available in stainless steel (as a special item). Please contact Osborn International for information on stainless steel rail.

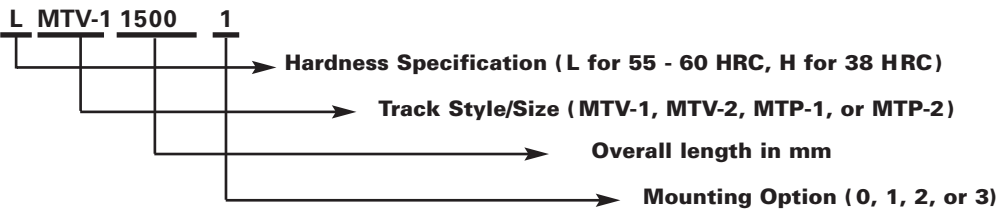
To specify Osborn Load Rails, choose the the hardness option (letter "L" for 55-60 HRC; letter "H" for 38 HRC), choose the style and size (MTV-1, MTV-2, MTP-1, MTP-2), add the overall length in millimetres - XXXX below -, and add the hole mounting option after a dash. For length less than 1.000 mm use a leading zero.

**(L/H)-MT-(V/P)-(1/2)-XXXX-(0/1/2/3)**

Example: For rail in carbon steel 55-60 HRC, 1.500 mm length of V track, 75 mm high (MTV-1) and with hole mounting option # 1, the part number would read:



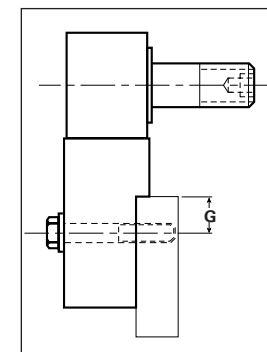
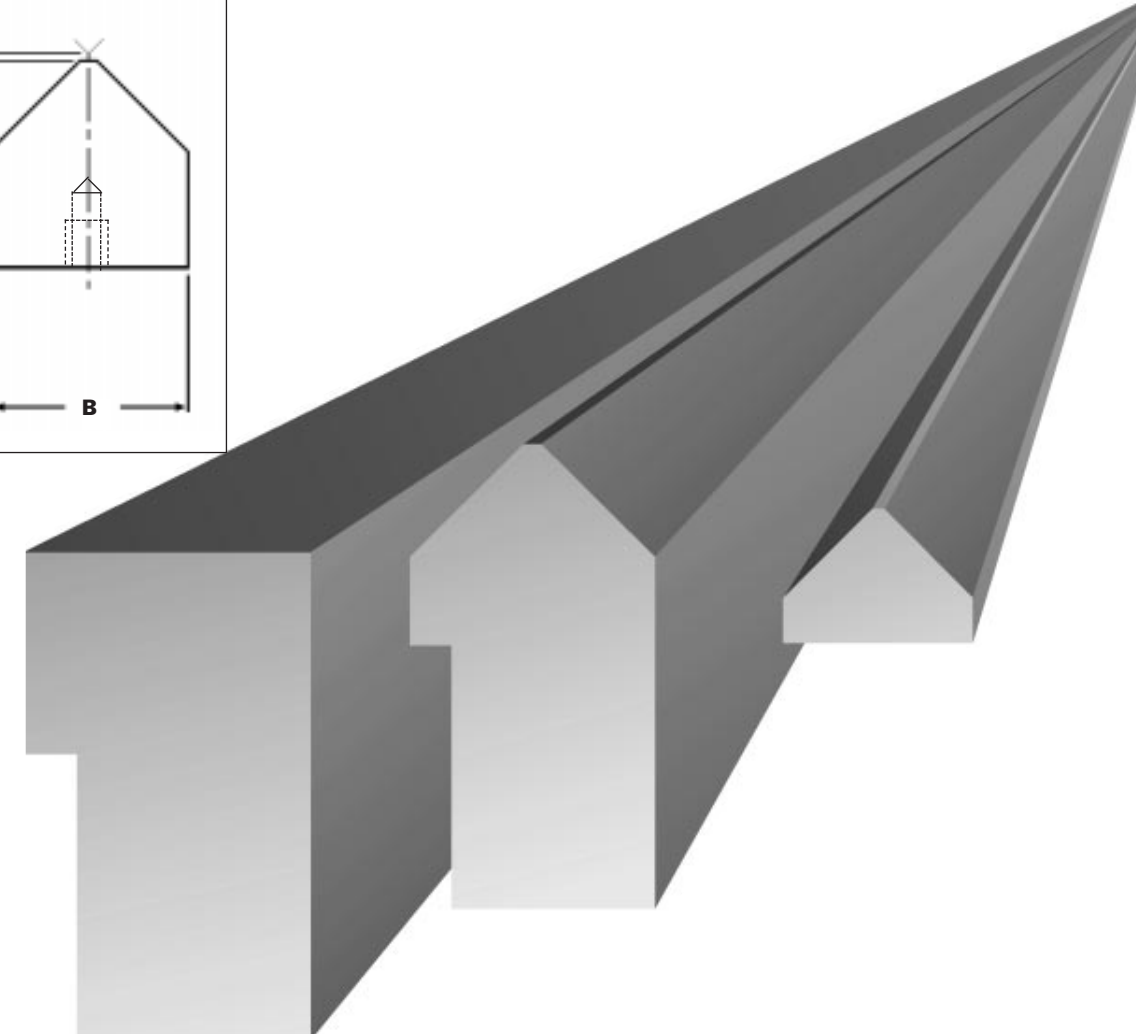
**Osborn Load Rails for maximum design flexibility.**



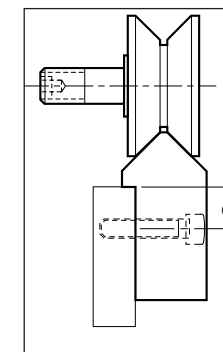
Osborn Part No.	A	B	C	D	E	F	G	Mounting		
								Option #1	Option #2	Option #3
L/H-MTV-1 XXXX	75	40	6	14	27	25,8	20	11 Cap Screw	10 Soc.Hd.Cap Screw	10x1.5 Cap Screw
L/H-MTV-2 XXXX	100	50	6	19	39	37,2	25	13 Cap Screw	12 Soc.Hd.Cap Screw	12x1.75Cap Screw
L/H-MTP-1 XXXX	75	40	6	-	27	-	20	11 Cap Screw	10 Soc.Hd.Cap Screw	10x1.5 Cap Screw
L/H-MTP-2 XXXX	100	50	6	-	39	-	25	13 Cap Screw	12 Soc.Hd.Cap Screw	12x1.75 Cap Screw
L/H-MPV-1 XXXX	38,2	40	-	-	-	40	-	M10 x 1,5 x L.15 Cap Screw		
L/H-MPV-2 XXXX	48,2	50	-	-	-	50	-	M12 x 1,75 x L.20 Cap Screw		

Rails longer than 4000mm are delivered in length (cut at 45° angle).

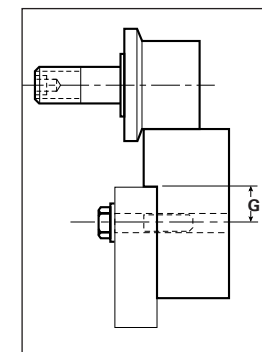
Mounting: Holes are equally spaced 250 mm apart except for track length over 500 mm, which has 3 holes, equally spaced 150 mm apart. For track length less than 500 mm, holes are spaced 100 mm apart. All holes are spaced evenly from end. Customer specified hole patterns are possible. Please contact Osborn with your requirements.



**Mounting Option #1**  
Clearance hole for cap screw



**Mounting Option #2**  
Clearance hole and c'bore for socket head cap screw and hi-collar lock washer.



**Mounting Option #3**  
Tapped thru hole for cap screw

**Metric Sizes (mm)**

**Load Rail-Spezifications**

To determine a part number, specify the type, replace "XXXX" with the track length dimension, and add the appropriate mounting option code (see chart). Maximum track length is 144". Track length tolerance is  $\pm 1/16"$

Osborn Load Rails offer allowable rail loadings of up to 71,500 lbs (317,450 N) per roller for maximum design flexibility.

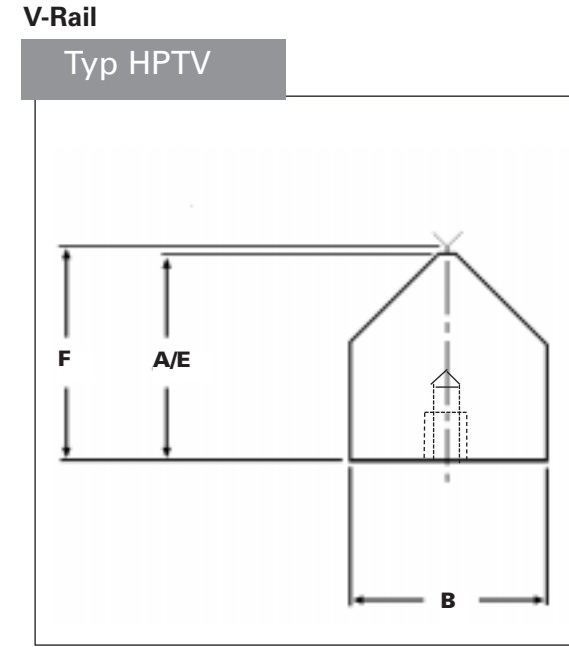
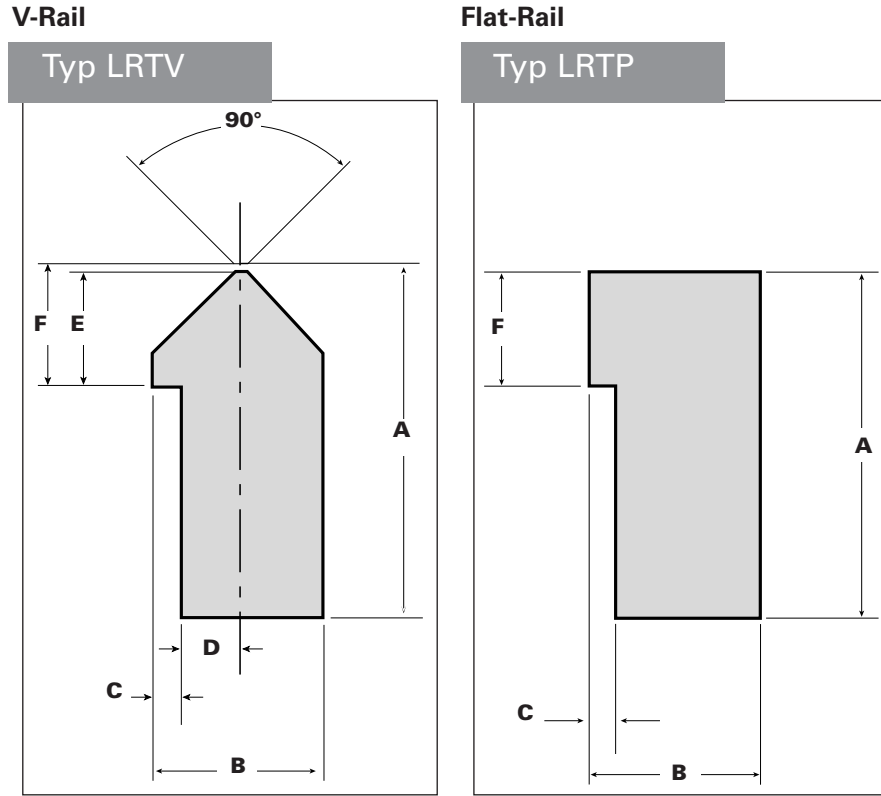
Osborn Load Rails are hardened on the rolling surface to 60 - 65 Rc.

Screw and lock washer are not supplied.



Track length in whole inches | Fractional track length

- |            |                        |
|------------|------------------------|
| 001 = 1"   | 0 = 0                  |
| 002 = 2"   | 1 = 1/8"               |
| 003 = 3"   | 2 = 1/4"               |
| 004 = 4"   | 3 = 3/8"               |
| 005 = 5"   | 4 = 1/2"               |
| 006 = 6"   | 5 = 5/8"               |
| etc.       | 6 = 3/4"               |
| =          | 7 = 7/8"               |
| 144 = 144" | (Maximum track length) |



Osborn Load Rails for maximum design flexibility.

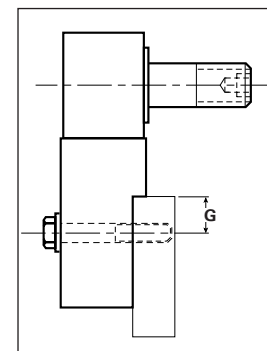
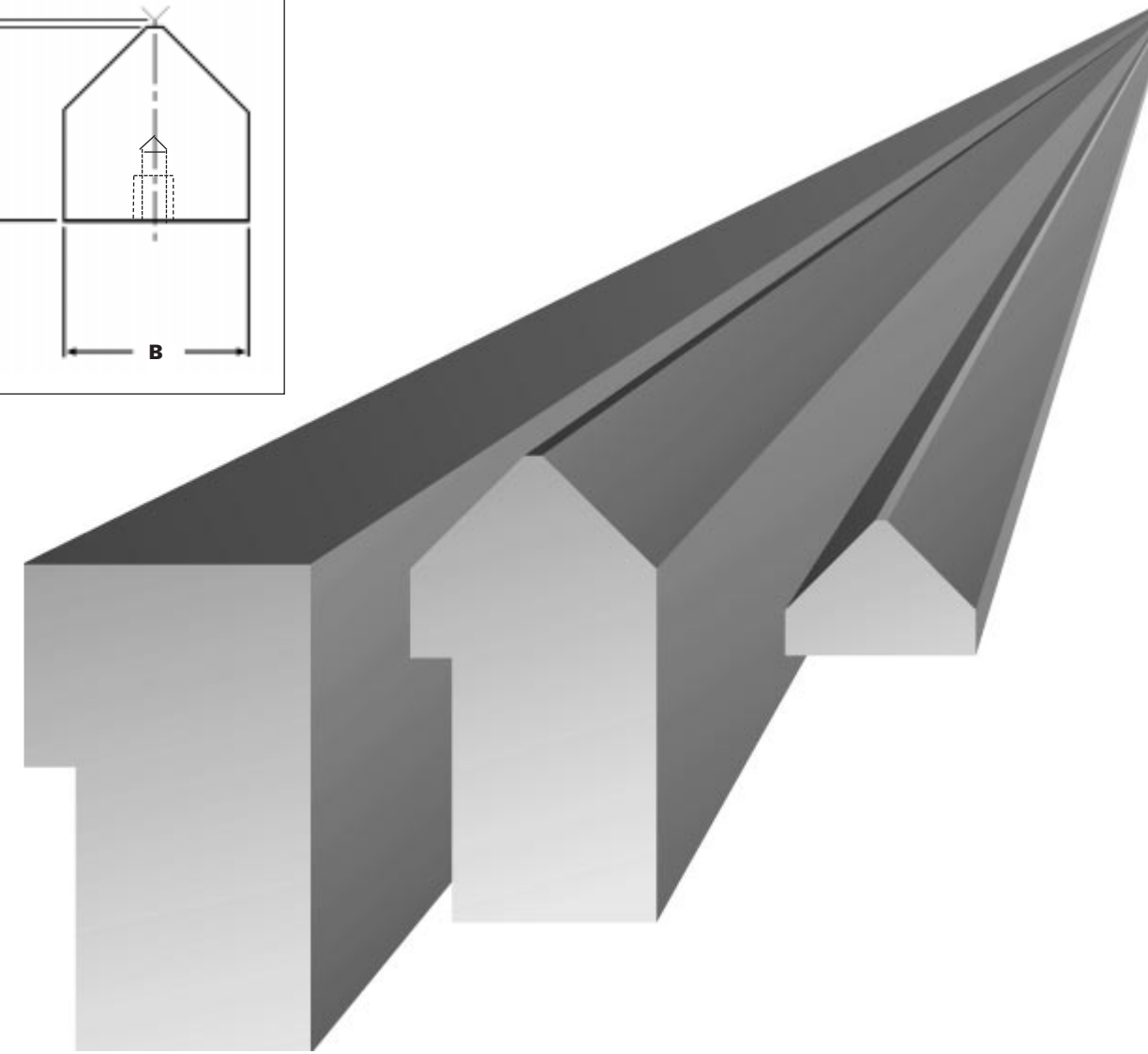
To complete part number, replace "XXXX" with track length dimension and mounting option.

For example - to specify a 4" high V-track 28-1/2" long with a clearance hole for a cap screw, the part number is: **LRTV-20284-1**.  
On request, the track length could be adjusted on customer specifications.

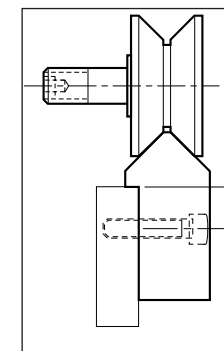
Osborn Part No.	A	B	C	D	E	F	G	Mounting		
								Option #1	Option #2	Option #3
LRTV-1 XXXX	3.000	1.500	0.250	0.500	1.000	1.047	0.750	3/8 Cap Screw	3/8 Soc.Hd.Cap Screw	3/8-16 UNC Cap Screw
LRTV-2 XXXX	4.000	2.000	0.250	0.750	1.500	1.562	1.000	1/2 Cap Screw	1/2 Soc.Hd.Cap Screw	1/2-13 UNC Cap Screw
LRTP-1 XXXX	3.000	1.500	0.250	-	-	1.047	0.750	3/8 Cap Screw	3/8 Soc.Hd.Cap Screw	3/8-16 UNC Cap Screw
LRTP-2 XXXX	4.000	2.000	0.250	-	-	1.562	1.000	1/2 Cap Screw	1/2 Soc.Hd.Cap Screw	1/2-13 UNC Cap Screw
HPTV-1 XXXX	1.500	1.500	-	-	1.500	1.547	-	3/8 - 16 UNC Cap Screw		
HPTV-2 XXXX	2.000	2.000	-	-	2.000	2.062	-	1/2 - 13 UNC Cap Screw		

Mounting holes equally spaced from rail ends on each option.

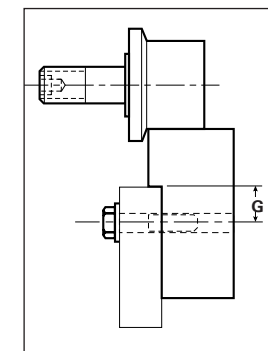
**Inch Sizes**



**Mounting Option # 1**  
Clearance hole for cap screw. Holes spaced 12" apart. To order, add "-1" to end of part number.



**Mounting Option # 2**  
Clearance hole and counterbore for socket head cap screw and hi-collar lock washer. Holes spaced 12" apart. To order, add "-2" to part number.



**Mounting Option # 3**  
Tapped thru hole for cap screw. Holes spaced 12" apart. To order, add "-3" to end of part number.

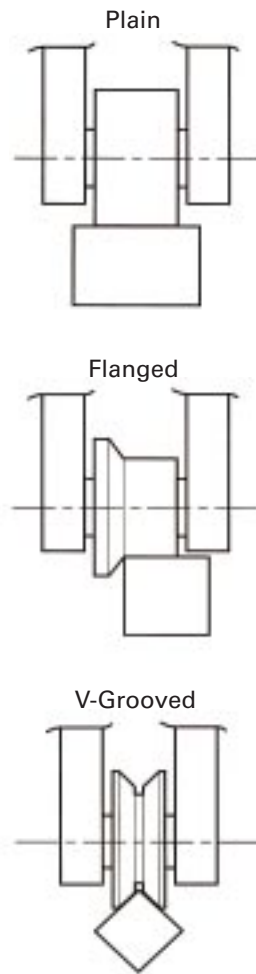
## Track Alignment and Capacity

### Customer Designed Requirements

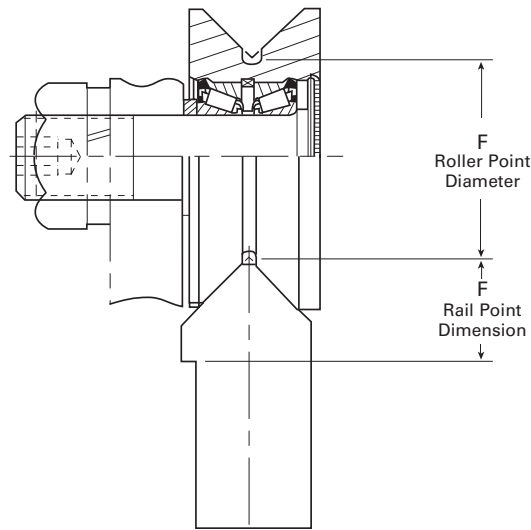
The track and roller should be aligned so that the roller tread lies on flat the track surface.

### Track capacity

For steel track of 180.000 PSI tensile strength (Rc=40), refer to the track capacity chart to find the track load capacity for the style and size of roller to be used. For steel track other than 180.000 PSI tensile strength, first refer to the track capacity factor chart for the type of steel to be used. Then multiply the track capacity for the roller being used by the track capacity factor for the steel to be used.



### Load Runner on Rail Design Recommendations



### Roller and rail design recommendations.

Mounting locations are determined by matching the roller point diameter with the rail point dimension. („F“ dimensions on roller and rail pages.)

Track Capacity, Radial Load Only, For Tracks Made of 180,000 PSI Steel (Hardness Rc-40) ①

HPC & HPCA		PLR & PLRY		HPJ & HPJA		FLR & FLRY		HPV & HPV A		VLR & VLRY		Track Hardness RC	Tensile Strength		Capacity Factor
Roller Size	Capacity		Roller Size	Capacity		Roller Size	Capacity Square Track Only		PSI	Kg/cm <sup>2</sup>					
	LBS.	N		LBS.	N		LBS.	N							
3	14.760	65.680	3	10.500	44.720	3 1/2	8.100	36.000	26	120.000	8.437	0,369			
3 1/4	16.000	71.200	3 1/4	10.900	48.500	4 1/2	13.200	58.800	32	140.000	9.843	0,552			
3 1/2	17.225	76.650	3 1/2	14.200	63.190	5	15.000	66.600	36	160.000	11.249	0,755			
4	25.300	112.580	4	19.000	84.550	5 1/2	16.700	74.400	40	180.000	12.655	1,000			
5	38.650	172.000	5	29.400	130.830	6 1/2	20.200	90.100	44	200.000	14.061	1,235			
6	54.830	244.000	6	47.730	212.400	7 1/2	23.800	106.000	47	220.000	15.467	1,494			
7	73.810	328.450	7	60.860	270.830	8 1/2	27.300	121.000	50	240.000	16.874	1,777			
8	95.600	425.400	8	82.220	365.880	9 1/2	30.800	137.000	53	260.000	18.280	1,995			
9	120.200	534.900	9	105.160	467.960	10 1/2	34.300	153.000	56	280.000	19.686	2,209			
10	147.600	656.800	10	130.900	582.500	11 1/2	37.900	168.000	58	300.000	21.092	2,306			

Track Capacity Factor ②

## Installation Notes

### Yoke Style

Load Runner yoke-style idler-rollers offer considerable mounting flexibility.

They can be installed on a bolt or thru-shaft between yoke brackets ("ears") which are fabricated as an integral part of the equipment, or in individual yoke brackets which can be bolted into position wherever needed (see drawing A).

It is important that the members which support the mounting bolt or thru-shaft are rigid enough to resist bending.

Axial clamping of yoke-style rollers (through the bore) is required to resist bending. See drawing B .

Suitable heavy duty thru-shafts designed specifically for use with yoke-style Load Runner idler-rollers are available from Osborn International. See pages 20 and 21.

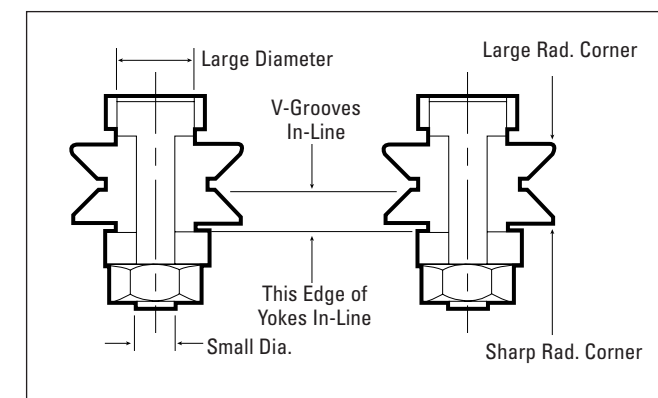
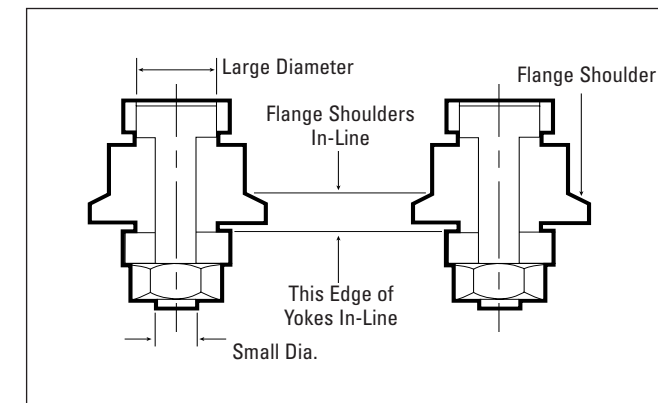
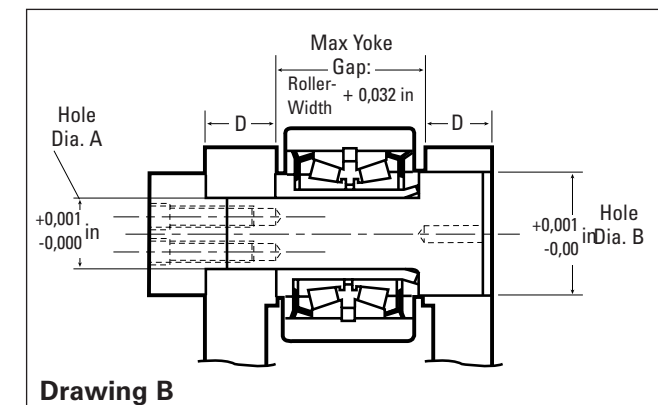
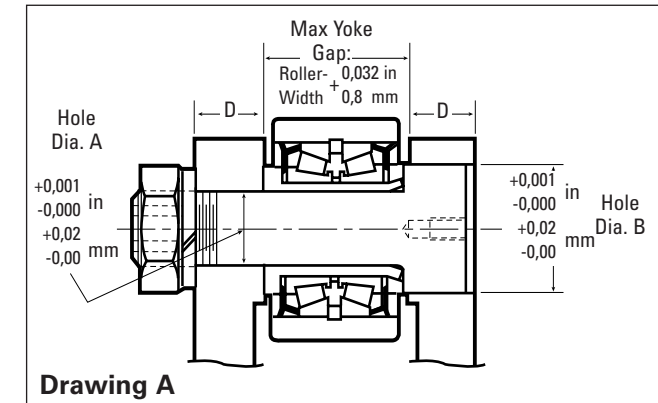
### Hex Socket Size Stud Style

#### Stud Diameter Inch

Hex Socket Size	
≤ 1/2"	1/4"
5/8" - 7/8"	5/16"
1" - 1 1/4"	1/2"
≥ 2"	5/8"

#### Stud Diameter Metric

Hex Socket Size	
≤ 12 mm	4 mm
16-24 mm	8 mm
30-64 mm	12 mm



### Shaft Style A

For Roller Sizes: PLRY and FLRY 2 1/2" Thru 7", VLRY 3 3/4" Thru 8 1/2" and all metrics See page 20 and 21 for actual shaft dimensions.

### Shaft Style B

For Roller Sizes: PLRY and FLRY 8" thru 10", VLRY 9 1/2" thru 11 1/2" See page 20 and 21 for actual shaft dimensions.

### Flange Alignment

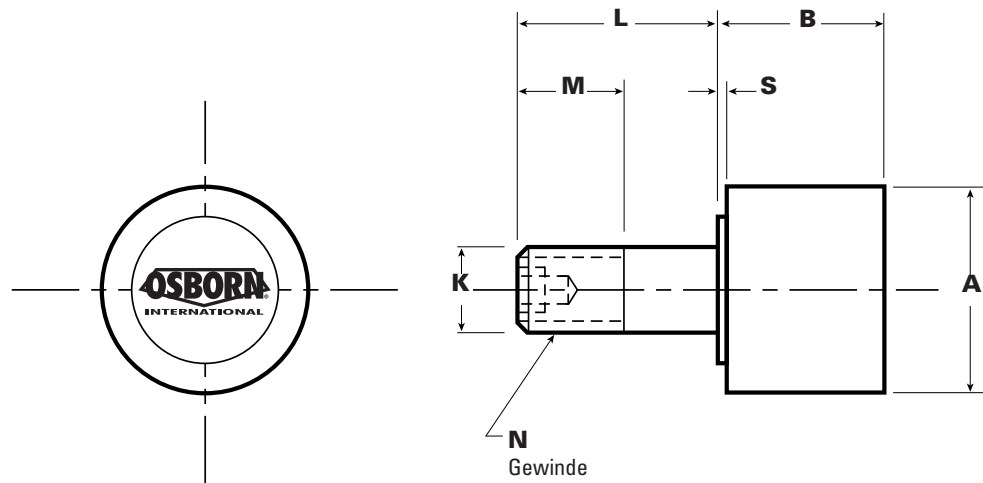
Orient each roller so that the flange is closest to the fixed (small diameter) end of the bolt or thru-shaft (see drawing). When the bolt or thru-shaft is clamped, the reference shoulder will be pulled up tightly against the structure reference surface.

### V-Groove Alignment

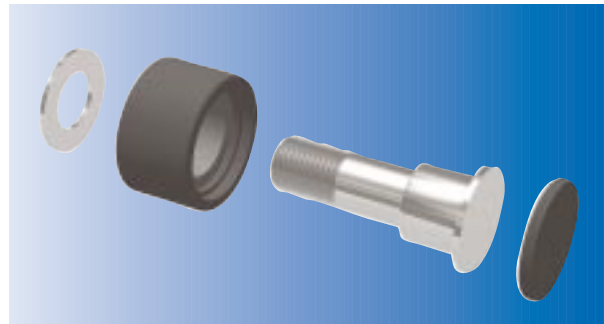
Orient each roller so that the sharp-radius corner is closest to the fixed (small diameter) end of the bolt or thru-shaft (see drawing). When the bolt or thru-shaft is clamped, the reference shoulder will be pulled up tightly against the structure reference surface.

**Cam Runner™**

- composite outer
- stainless steel shaft
- wet environments



includes jam nut and lock washer



Part No.	EDP No.	A Roller Dia.	B Roller Width	K Stud Dia.	L Stud Length	N Thread	M Thread Length	S Shoulder Length	Static Capacity (N)
MPCR-13	097 904-9907	13	10	5	13	M5	7,5	0,6	490
MPCR-16	097 905-9907	16	11,6	6	16	M6	9	0,6	1020
MPCR-19	097 906-9907	19	13,3	8	20	M8	11	0,6	3100
MPCR-22	097 907-9907	22	13,3	10	23	M10x1	12	0,6	3100
MPCR-26	097 908-9907	26	16,5	10	23	M10x1	12	0,6	3870
MPCR-30	097 909-9907	30	19,6	12	25	M12x1,5	14	0,6	3870
MPCR-32	097 910-9907	32	19,6	12	25	M12x1,5	14	0,6	4890
MPCR-35	097 911-9907	35	19,8	16	32,5	M16x1,5	18	0,8	4890
MPCR-40	097 912-9907	40	23	18	36,5	M18x1,5	19	0,8	8000

**Metric  
Sizes (mm)**

Part No.	EDP No.	A Roller Dia.	B Roller Width	K Stud Dia.	L Stud Length	N Fine Thread	M Thread Length	S Shoulder Length	Dynamic Capacity (Lbs)
PCR-1/2	096 959-9907	1/2"	3/8"	3/16"	5/8"	10-32	1/4"	1/32"	110
PCR-9/16	096 960-9907	9/16"	3/8"	3/16"	5/8"	10-32	1/4"	1/32"	110
PCR-5/8	096 961-9907	5/8"	7/16"	1/4"	3/4"	1/4-28	5/16"	1/32"	230
PCR-11/16	096 962-9907	11/16"	7/16"	1/4"	3/4"	1/4-28	5/16"	1/32"	230
PCR-3/4	096 963-9907	3/4"	1/2"	3/8"	7/8"	3/8-24	3/8"	1/16"	700
PCR-7/8	096 964-9907	7/8"	1/2"	3/8"	7/8"	3/8-24	3/8"	1/16"	700
PCR-1	096 965-9907	1"	5/8"	7/16"	1"	7/16-20	1/2"	1/16"	870
PCR-1-1/8	096 966-9907	1-1/8"	5/8"	7/16"	1"	7/16-20	1/2"	1/16"	870
PCR-1-1/4	096 967-9907	1-1/4"	3/4"	1/2"	1-1/4"	1/2-20	5/8"	1/16"	1100
PCR-1-3/8	096 968-9907	1-3/8"	3/4"	1/2"	1-1/4"	1/2-20	5/8"	1/16"	1100
PCR-1-1/2	096 969-9907	1-1/2"	7/8"	5/8"	1-1/2"	5/8-18	3/4"	1/16"	1800
PCR-1-5/8	096 970-9907	1-5/8"	7/8"	5/8"	1-1/2"	5/8-18	3/4"	1/16"	1800

**Osborn Cam Runners are significantly different from conventional needle bearing style cam followers. This product is protected by U. S. patent and other patents pending**

**General Characteristics**

Cam Runners are manufactured with a composite synthetic tread and stainless steel stud. The composite treads consists of two different synthetic materials chosen to provide optimal characteristics for the outer wear surface and the inner bearing surface. The two synthetic parts are molded together to form a single mechanically bonded assembly that is mounted on the stud, eliminating the need for conventional seals and lubricants. The outer tread material offers high mechanical strength while the inner bearing material provides high lubricity.

The stud provides optimum life and corrosion resistance when used with the Cam Runner tread and bearing assembly. Bearing wear is critically dependent on the hardness of the mating surface. When this assembly is used as a direct replacement for a conventional cam follower, the life will be optimized if the cam or other mating surface is within the range of 55 - 60 RC.

Softer or harder materials may result in decreased life, particularly under high loads. The mating surface must be free of grease, oil and abrasive contaminants.

This assembly is dimensionally a direct replacement for conventional steel cam followers. Because of its unique construction, comparable load ratings are not applicable. In order to guide you in choosing applications, extensive testing has been utilized to develop life expectancies based upon continuous duty testing at various speeds and loads. In continuous duty operation under identical loads and speeds, the Cam Runner has been found to outlast conventional steel cam followers by an average of 10 times!

Bearing to stud clearance is greater than for needle bearing designs and will increase during early use and will stabilize after „wearing in“. Adjustment after a suitable break-in period is recommended where such a clearance may affect other aspects of the operation.

**Advantages**

- No lubrication required – ever!
- Non sparking and low electrical conductivity
- Thrust load tolerant
- Extended life ideal for difficult-to-service-operations
- No lubricant leakage to contaminate your process
- Quiet operation resulting from no internal moving parts
- Wide range of operating temperatures
- Manufactured under ISO 9001 certified quality system

Not recommended for ambient temperatures above 250° F, highly abrasive applications or repeated heavy shock loads.

**Inch  
Sizes**

- Brazil
- China
- Denmark
- France
- Germany
- Great Britain
- Mexico
- Portugal
- Romania
- Sweden
- United States of America

ISO 9001 Certified Quality System

**OSBORN INTERNATIONAL GmbH**  
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Surface Finishing Tools and Load Runners

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**OSBORN**  
INTERNATIONAL

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