



**COMPREHENSIVE RANGE OF ROD ENDS
AND SPHERICAL BEARINGS
FROM THE WORLD'S LEADING
MANUFACTURERS**

GENERAL

Rod ends are available in right or left hand thread, male or female design. Shank (thread) and eye (bore) diameters listed apply to most types in the tables. Spherical bearings are also listed. Other dimensions/size ranges/liner types may vary between manufacturers. Please check availability before ordering.

MATERIALS

Mating materials usually fall into one of the following groups:

- 1) Sintered bronze, brass or copper alloy.

Part No prefix: VM/VF, POS/PHS, PB

- 2) Reinforced nylon.

Part No prefix: PM/PF

- 3) Steel on steel design

Part No prefix AM/AF, BL-D (zinc alloy)

- 4) With reinforced Teflon liner.

**Part No prefix: All Race Car Series,
AHMT/AHFT, KA/KJ-D, RBT/RBT-E, S-D**

IDENTIFICATION

The numbering system usually identifies the construction, basic size, thread type (male/female - left/right hand) and whether imperial (inch), or metric (mm).

LOAD CAPACITIES

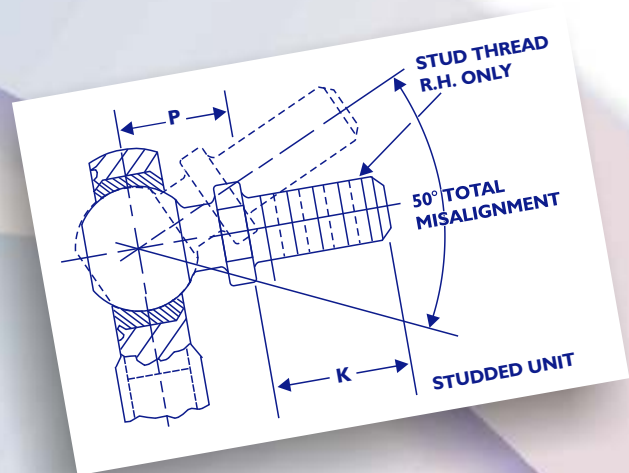
Capacities listed by manufacturers are not necessarily relative to each other, as no uniform standard exists to determine these. In general, the industrial grade rod ends listed herein can be grouped as having similar capacities. For heavy duty applications please refer to the RACE CAR SERIES which are more suitable for higher loading and shock applications (eg racing car suspension). For applications of a difficult nature please consult our technical department.

STUDED DESIGN

(Add S to prefix letter)

Most industrial rod ends are available in studded design as shown with either male or female body design. Studs are male right hand, and of the same thread form and diameter as the shank. Dimensions **P** & **K** are listed in the tables on the following pages.

Ordering example - **VMS 8** (Bronze lined male right hand with 1/2" UNF stud).

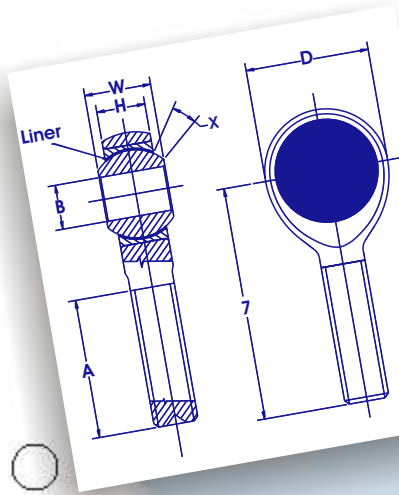


Series	Housing	Ball	Race	Liner	Stud
ABT	410 stainless steel r/c 23-35	440C stainless r/c 55-62	-	PTFE	n/a
ABYT	410 stainless steel r/c 23-35	440C stainless r/c 55-62	-	PTFE	n/a
ABWT	410 stainless steel r/c 23-35	440C stainless r/c 55-62	-	PTFE	n/a
AHMT/AHFT	303 stainless steel	440C stainless - heat treated	-	PTFE	n/a
AM/AF	low carbon steel - plated	Low carbon steel - hardened & plated	-	-	yes
ARHT	17-4 ph stainless steel - passivated	440C stainless steel - HRC 55-62	410 stainless steel	PTFE	n/a
ART	17-4 ph stainless steel - passivated	440C stainless steel - HRC 55-62	410 stainless steel	PTFE	n/a
ARYT	17-4 ph stainless steel - passivated	440C stainless steel - HRC 55-62	410 stainless steel	PTFE	n/a
BL-D	High strength zinc alloy	Bearing steel ball & stud	-	-	yes
KA/KJ-D	Low carbon steel - plated	Bearing steel - hardened & ground	Brass	PTFE	n/a
PB	Fatigue resistant steel - S35C	SAE 52100 steel - SUJ2 - HRC 58	Special copper alloy	-	n/a
PM/PF	Low carbon steel - plated	Low carbon steel hardened & plated	-	NYLOY	yes
POS/PHS	fatigue resistant steel - S35C	SAE 52100 steel - SUJ2 - HRC 58	Special copper alloy	-	n/a
RBT-E/RBT	303 stainless steel	440C stainless - heat treated	-	PTFE	n/a
RMT-X5	Chrome moly steel - heat treated & plated	Chrome moly steel - heat treated & plated	Chrome moly steel heat treated & plated	PTFE	n/a
S-D	Free cutting steel - ground OD	Bearing steel - hardened & ground	Brass	PTFE	n/a
VM/VF	Low carbon steel - plated	Low carbon steel - hardened & plated	Sintered bronze, oil impregnated	-	yes

THIS CATALOGUE REPRESENTS OUR MAIN SERIES OF ROD ENDS ONLY. WE HAVE OTHER TYPES AND SIZES AVAILABLE. PLEASE ENQUIRE IF YOU HAVE SPECIAL REQUIREMENTS.

RACE CAR SERIES - HIGH PERFORMANCE MALE ROD ENDS

AEROSPACE PERFORMANCE AT GROUND LEVEL



NMB No.	Alinabal No.	Bore B Thread M UNF	Centre Length F	Thread Length A	HEAD Dia D	Head Width H	Ball Width W	Angle Deg. X
ART 4 E	-	1/4 x 5/16	1.562	0.968	0.806	0.337	0.437	15°
ARYT 4 E	-	1/4 x 3/8	1.938	1.250	1.000	0.265	0.593	23°
ART 5 E	RMT 5 x 5	5/16 x 5/16	1.875	1.187	0.900	0.327	0.437	14°
ARHT 5 E	-	5/16 x 3/8	1.875	1.187	0.900	0.327	0.437	14°
ARYT 5 E	-	5/16 x 7/16	2.125	1.375	1.125	0.355	0.813	22°
ART 6 E	RMT 6 x 5	3/8 x 3/8	1.938	1.187	1.025	0.416	0.500	8°
ARHT 6 E	-	3/8 x 7/16	1.938	1.187	1.025	0.416	0.500	9°
ARYT 6 E	-	3/8 x 7/16	2.125	1.375	1.125	0.355	0.813	22°
ART 7 E	RMT 7 x 5	7/16 x 7/16	2.125	1.281	1.150	0.452	0.562	10°
ARHT 7 E	-	7/16 x 1/2	2.125	1.281	1.15	0.452	0.562	10°
ARYT 7 E	-	7/16 x 1/2	2.438	1.500	1.312	0.355	0.875	21°
ART 8 E	RMT 8 x 5	1/2 x 1/2	2.438	1.468	1.337	0.515	0.625	9°
ARHT 8 E	RMT 8-10 x 5	1/2 x 5/8	2.438	1.468	1.337	0.515	0.625	9°
ARYT 8 E	-	1/2 x 5/8	2.625	1.625	1.500	0.411	0.937	19°
ART 10 E	RMT 10 x 5	5/8 x 5/8	2.625	1.562	1.525	0.577	0.750	12°
ARHT 10 E	RMT 10-12 x 5	5/8 x 3/4	2.625	1.562	1.525	0.577	0.750	12°
ARYT 10 E	-	5/8 x 3/4	2.875	1.750	1.750	0.577	1.200	19°
ART 12 E	RMT 12 x 5	3/4 x 3/4	2.875	1.687	1.775	0.640	0.875	13°
ARHT 12 E	-	3/4 x 7/8	2.875	1.687	1.775	0.640	0.875	13°
ART 16 E	-	1 x 1 1/4	4.125	2.343	2.775	1.015	1.375	12°

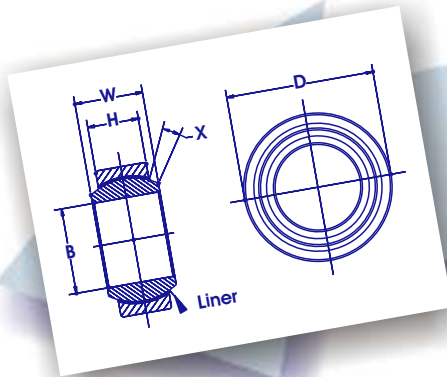
For left hand version add L to part number eg, **ARTL8E**

Material Specifications:

NMB Part No's	Housing	17-4 PH Stainless Steel
	Ball	440C Stainless Steel - Heat Treated
	Race	410 Stainless Steel
	Liner	Teflon Fabric Bonded to Race I.D

Alinabal Part No's	Housing	Chrome Moly Steel - Plated
	Ball	Chrome Moly Steel - Plated
	Race	Chrome Moly Steel - Plated
	Liner	Self Lub. Woven Teflon Fabric

IMPERIAL SPHERICAL PLAIN

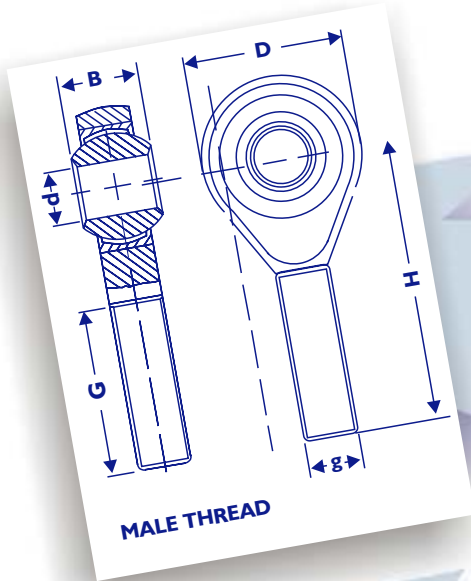


NMB Part No.	Bore Dia. B	Outside Dia. D	Ball Width W	Housing Width H	Angle Deg. X	NMB Part No.	Bore Dia. B	Outside Dia. D	Ball Width W	Housing Width H	Angle Deg. X
ABT 4	1/4	0.656	0.343	0.250	10°	ABT 8	1/2	1.000	0.500	0.390	8°
ABWT 4		0.625	0.437	0.327	15°	ABWT 8		1.000	0.625	0.505	9°
ABYT 4		0.740	0.593	0.255	24°	ABYT 8		1.125	0.937	0.401	20°
ABT 5	5/16	0.750	0.375	0.281	10°	ABT 10	5/8	1.187	0.625	0.500	8°
ABWT 5		0.687	0.437	0.317	14°	ABWT 10		1.187	0.750	0.567	12°
ABYT 5		0.687	0.625	0.255	20°	ABYT 10		1.375	1.200	0.567	20°
ABT 6	3/8	0.812	0.406	0.312	9°	ABT 12	3/4	1.437	0.750	0.593	8°
ABWT 6		0.812	0.500	0.406	8°	ABWT 12		1.375	0.875	0.630	13°
ABYT 6		0.906	0.813	0.345	23°	ABYT 12		1.562	1.280	0.620	18°
ABT 7	7/16	0.906	0.437	0.343	8°	ABT 14	7/8	1.562	0.875	0.703	8°
ABWT 7		0.937	0.562	0.442	10°	ABWT 14		1.625	0.875	0.755	6°
ABYT 7		1.000	0.875	0.345	22°	ABT 16	1"	1.750	1.000	0.797	9°
						ABWT 16		2.125	1.375	1.000	12°

Material Specifications: Ball 440C CRES R/C 55-62 Race 410 CRES R/C 55-62 Liner Teflon Fabric

METRIC ROD ENDS - MALE

Bronze Lined	Nylon Lined	Teflon Lined	Teflon Lined Stainless Steel	Basic Size Eye Diameter	Thread g mm x pitch	Thread Length	Centre of Eye to Thread End	Head Diameter	Overall Ball Width	Studded See page 2	
				d	g x pitch	G	H	D	B	P	K
POS	PM-M	KA-D	**RBT-E	3	3X.5	15	27	12	6	6	6
				5	5X.8	20	33	18	8	5	10
				6	6X1	22	36	20	9	12	12
				8	8X1.25	25	42	24	12	16	16
				10	10X1.5	29	48	28	14	20	20
				12	12X1.75	33	54	32	16	24	24
				14	14X2	36	60	36	19	28	28
				16	16X2	40	66	42	21	32	32
				18	18X1.5	44	72	46	23	-	-
				20	20X1.5	47	78	50	25	-	-
				25	24X2	57	94	60	31	-	-
				30	30X2	66	110	70	37	-	-



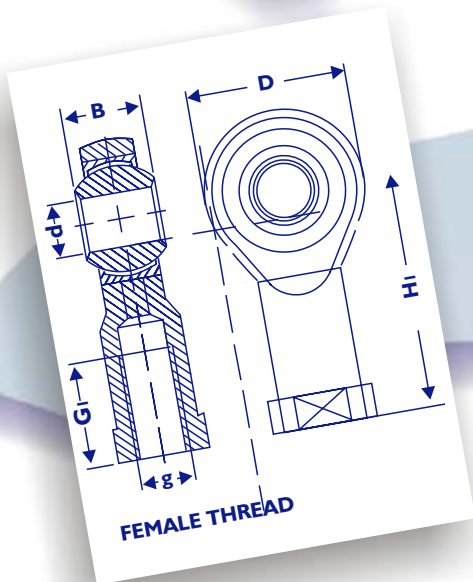
**RBT-E Type not available with stud

Ordering Example: **POS16** (Bronze lined, male, right hand, 16mm basic size)

For left hand version add **L** to part number, eg **PML12M**

METRIC ROD ENDS - FEMALE

Bronze Lined	Nylon Lined	Teflon Lined	Teflon Lined Stainless Steel	Basic Size Reference	Thread g mm x pitch	Thread Length	Centre of Eye to Thread End	Head Diameter	Overall Ball Width	Studded See page 2	
					g x pitch	G1	H1	D	B	P	K
PHS	PF-M	*KJ-D	**RBT	3	3X.5	10	21	12	6	6	6
				5	5X.8	10	27	18	8	5	10
				6	6X1	12	30	20	9	12	12
				8	8X1.25	16	36	24	12	16	16
				*10	10X1.5	20	43	28	14	20	20
					10X1.25						
				*12	12X1.75	22	50	32	16	24	24
					12X1.25						
				14	14X2	25	57	36	19	28	28
				*16	16X2	28	64	42	21	32	32
					16X1.5						
				18	18X1.5	32	71	46	23	-	-
				20	20X1.5	33	77	50	25	-	-
				25	24X2	48	94	60	31	-	-
				30	30X2	56	110	70	37	-	-



**RBT Type not available with stud

*Specify pitch when ordering **KJ-D** series for sizes 10, 12 & 16

eg, **KJ10DX1.25**

For left hand versions add **L** to part number, eg **KJL8D**

Please note: The above tables are intended as a general outline. Please contact LINEAR BEARINGS for exact dimensions.

IMPERIAL ROD ENDS - MALE

Bronze Lined	Nylon Lined	Steel on Steel	Teflon Lined Stainless Steel	Basic Size Reference	Eye Diameter	UNF Thread Diameter	Thread Length	Centre of Eye to Thread End	Head Diameter	Overall Ball Width	Studded See page 2	
					d	g x pitch	G	H	D	B	P	K
VM-G	PM-G	AM-G	**AHMT	3	3/16	3/16X32	0.750	1.25	0.750	0.312	0.500	0.500
				4	1/4	1/4X28	1.000	1.562	0.750	0.375	0.500	0.562
				5	5/16	5/16X24	1.250	1.875	0.875	0.437	0.562	0.687
				6	3/8	3/8X24	1.250	1.938	1.000	0.500	0.625	0.875
				7	7/16	7/16X20	1.375	2.125	1.125	0.562	0.875	1.125
				8	1/2	1/2X20	1.500	2.438	1.312	0.625	0.875	1.125
				10	5/8	5/8X18	1.625	2.625	1.500	0.750	1.000	1.500
				12	3/4	3/4X16	1.750	2.875	1.750	0.875	1.250	1.812
				16	1	1 1/4 X12	2.375	4.125	2.750	1.375	-	-

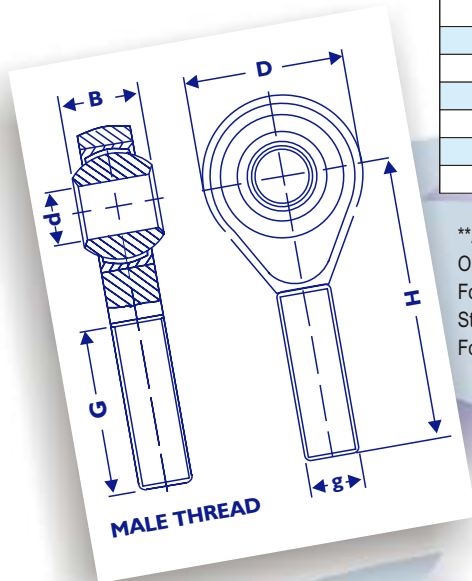
**AHMT Type not available with stud

Ordering Example: **VM10G** (Bronze lined, male, right hand, 5/8" basic size)

For left hand version add **L** to prefix letters **VML10G**

Studded Rod End Ordering Example: **AMS6G** (Steel on steel, male to male, 3/8")

For heavy duty applications, see Race Car Series



IMPERIAL ROD ENDS - FEMALE

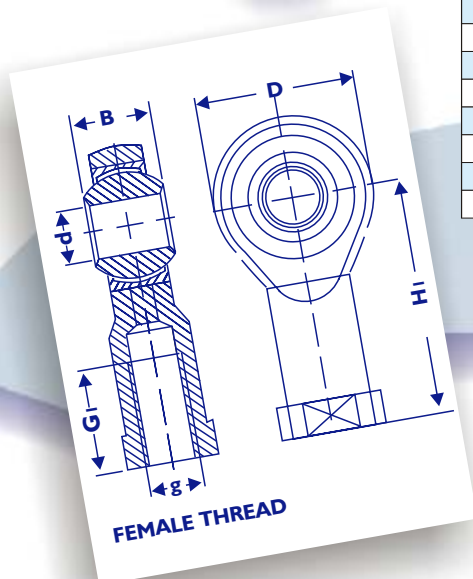
Bronze Lined	Nylon Lined	Steel on Steel	Teflon Lined Stainless Steel	Basic Size Reference	Eye Diameter	UNF Thread Diameter	Thread Length	Centre of Eye to Thread End	Head Diameter	Overall Ball Width	Studded See page 2	
					d	g x pitch	G	H	D	B	P	K
VF-G	PF-G	AF-G	**AHFT	3	3/16	3/16X32	0.750	1.25	0.750	0.312	0.500	0.500
				4	1/4	1/4X28	1.000	1.562	0.750	0.375	0.500	0.562
				5	5/16	5/16X24	1.250	1.875	0.875	0.437	0.562	0.687
				6	3/8	3/8X24	1.250	1.938	1.000	0.500	0.625	0.875
				7	7/16	7/16X20	1.375	2.125	1.125	0.562	0.875	1.125
				8	1/2	1/2X20	1.500	2.438	1.312	0.625	0.875	1.125
				10	5/8	5/8X18	1.625	2.625	1.500	0.750	1.000	1.500
				12	3/4	3/4X16	1.750	2.875	1.750	0.875	1.250	1.812
				16	1	1 1/4 X12	2.375	4.125	2.750	1.375	-	-

**AHFT Type not available with stud

Ordering Example: **PF8G** (Nylon lined, female, 1/2" basic size)

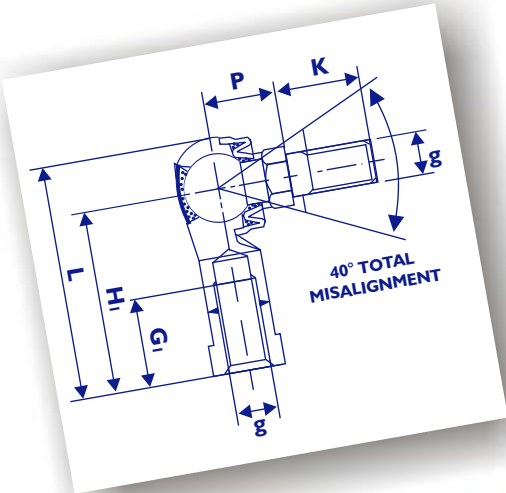
For left hand versions add **L** to prefix letters **PFL8G**

Studded Rod End Ordering Example: **AFS6G** (Steel on steel, female to male, 3/8")



Please note: The above tables are intended as a general outline. Please contact LINEAR BEARINGS for exact dimensions.

FEMALE METRIC STUDDED ROD ENDS

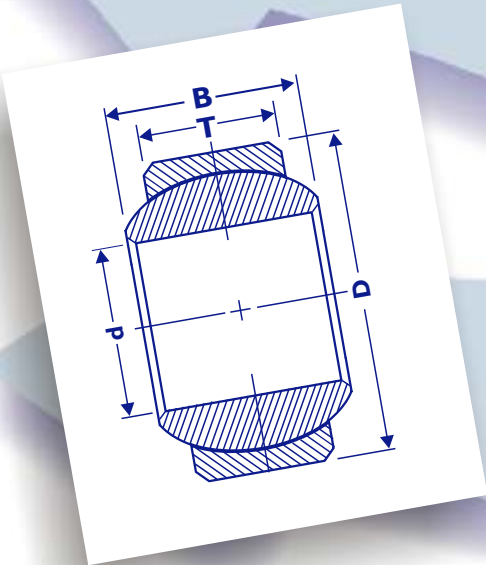


Basic Part Number	Thread Diameter x pitch g x pitch	Thread Length G1	Centre of Eye to Thread End H1	Body Length L	Refer Page 2		Max Stud Misalign. °
					P	K	
BL6D	M6X1	16	30	38.0	11.0	15.0	40°
BL8D	M8X1.25	19	36	45.5	14.0	17.0	40°
BL10BD	M10X1.5	23	43	55.5	17.0	26.0	40°
BL12D	M12X1.25	26	50	64.5	19.0	23.0	40°
BL12BD	M12X1.75	26	50	64.5	19.0	30.0	40°
BL14D	M14X1.5	26	57	75.0	21.5	35.0	40°
BL14BD	M14X2	26	57	75.0	21.5	40.5	40°
BL16D	M16X1.5	32	64	84.0	23.5	36.5	30°
BL16BD	M16X2	32	64	84.0	23.5	42.5	30°
BL20D	M20X1.5	35	77	99.0	27.0	41.0	35°

For left hand thread add suffix L eg, BL12BDL

Note: Body only available with left hand thread - stud always has right hand thread

METRIC SPHERICAL PLAIN



Teflon Lined Bronze Race	Bronze Lined	Basic Size Reference	Bore Diameter d	Outside Diameter D	Ball Width B	Outer Race Width T
S-D	PB	5	5	16	8	6.0
		6	6	18	9	6.75
		8	8	22	12	9.0
		10	10	26	14	10.5
		12	12	30	16	12.0
		14	14	34	19	13.5
		16	16	38	21	15.0
		18	18	42	23	16.5
		20	20	46	25	18.0
		22	22	50	28	20.0
		25	25	56	31	22.0

Ordering Example: S14D (Teflon Lined 14mm Basic Size)