HRT

Female　Self Lubricating　3 Piece

2023/03/22

Feature of a Product

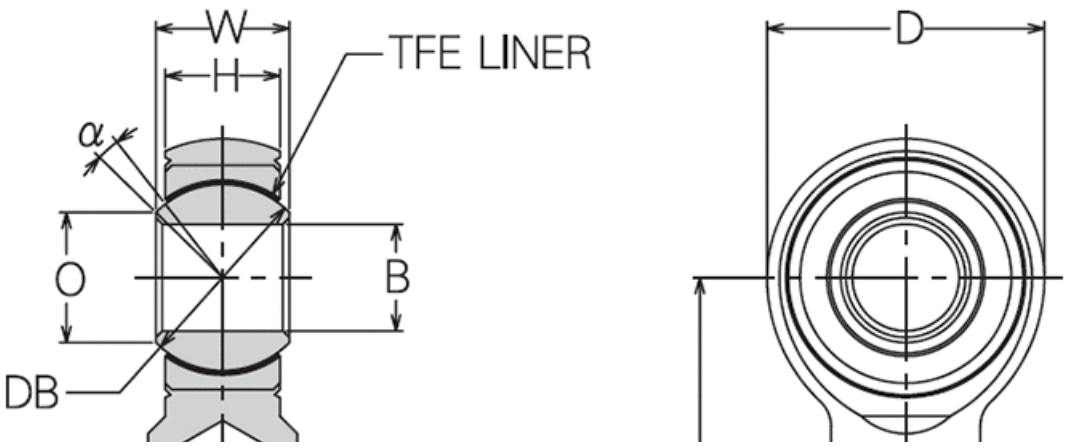
Suitable for High load application.
Self-lubricating.

Consist of a spherical bearing staked into the Rod End body. They provide high strength, as main body material is chrome molybdenum steel (hardness 35HRC, tensile strength 980N/mm2 {100kgf/mm2}). Material of spherical race is selected depending on applications, and therefore, 3piece Rod End can bear sever requirements.

Material

(P/N)	BODY	RACE	BALL	LINER
HRT	Chromium-Molybdenum Steel Zinc Plated	410 Stainless Steel / Heat Treated	440C Stainless Steel / Heat Treated	PTFE / Fabric
HRT-CR	SUS630 Stainless Steel Passivated	410 Stainless Steel / Heat Treated	440C Stainless Steel / Heat Treated	PTFE / Fabric

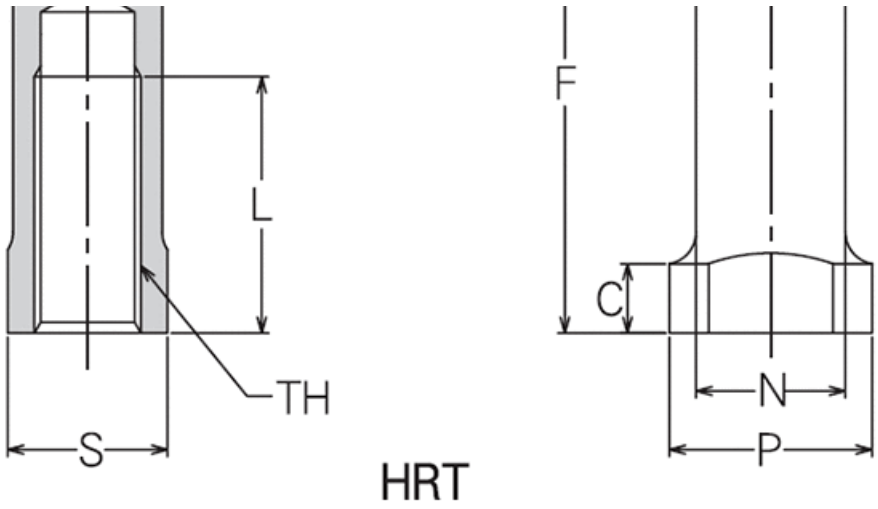
Overall View



HRT

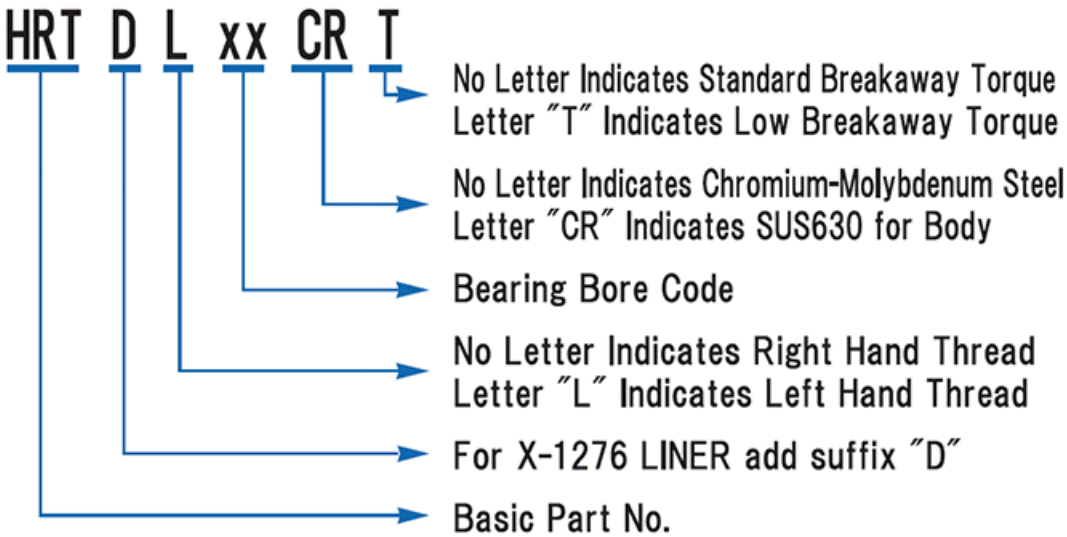
Female　Self Lubricating　3 Piece

2023/03/22



HRT

Part Number



Dimension

Dimensions in mm

HRT

Female Self Lubricating 3 Piece

2023/03/22

Part No.	øB H7	øD ±0.5	W 0-0.13	H ±0.13	F ±0.5	TH JIS CL2
HRT5	5	20.5	11.0	8.75	35.0	M5×0.8
HRT6	6	20.5	11.0	8.75	37.0	M6×1.0
HRT8	8	23.0	11.0	8.25	41.0	M8×1.25
HRT10	10	26.0	12.5	10.75	46.0	M10×1.5
HRT12	12	34.0	16.0	13.25	57.0	M12×1.75
HRT14	14	36.0	17.0	14.25	60.0	M14×2.0
HRT15	15	38.0	18.0	14.25	62.0	M14×2.0
HRT16	16	39.0	19.0	15.25	63.5	M16×2.0
HRT17	17	41.0	20.0	15.25	68.0	M16×1.5
HRT18	18	43.0	20.0	16.30	74.0	M18×1.5
HRT20	20	45.0	22.0	16.30	76.0	M20×1.5
HRT22	22	52.0	22.0	19.30	85.0	M22×1.5
HRT25	25	70.0	35.0	25.30	105.0	M24×2.0
HRT28	28	75.0	35.0	25.30	110.0	M27×2.0
HRT30	30	78.0	37.0	26.30	120.0	M30×2.0
HRT5CR	5	20.5	11.0	8.75	35.0	M5×0.8
HRT6CR	6	20.5	11.0	8.75	37.0	M6×1.0
HRT8CR	8	23.0	11.0	8.25	41.0	M8×1.25
HRT10CR	10	26.0	12.5	10.75	46.0	M10×1.5
HRT12CR	12	34.0	16.0	13.25	57.0	M12×1.75
HRT14CR	14	36.0	17.0	14.25	60.0	M14×2.0
HRT15CR	15	38.0	18.0	14.25	62.0	M14×2.0
HRT16CR	16	39.0	19.0	15.25	63.5	M16×2.0
HRT17CR	17	41.0	20.0	15.25	68.0	M16×1.5
HRT18CR	18	43.0	20.0	16.30	74.0	M18×1.5
HRT20CR	20	45.0	22.0	16.30	76.0	M20×1.5
HRT22CR	22	52.0	22.0	19.30	85.0	M22×1.5
HRT25CR	25	70.0	35.0	25.30	105.0	M24×2.0
HRT28CR	28	75.0	35.0	25.30	110.0	M27×2.0
HRT30CR	30	78.0	37.0	26.30	120.0	M30×2.0

Part No.	L ±0.7	øN ±0.5	øP ±0.5	C +0.2-0.7	S ±0.25	α DEG	øO(REF)
HRT5	19.0	10.8	15	4.5	12	15	7.8
HRT6	19.0	10.8	15	4.5	12	15	7.8
HRT8	22.0	12.5	17	6.5	14	14	10.9
HRT10	24.0	14.0	19	6.5	15	8	12.2
HRT12	32.0	18.5	24	6.5	20	10	15.4

HRT

Female Self Lubricating 3 Piece

2023/03/22

HRT14	33.0	19.0	24	7.5	20	8	18.9
HRT15	34.0	20.0	25	8.5	21	11	19.0
HRT16	35.0	22.0	27	9.5	23	10	19.2
HRT17	37.0	23.0	28	9.5	24	12	20.4
HRT18	40.0	24.0	30	10.0	26	10	20.4
HRT20	41.0	25.0	30	10.0	26	13	22.9
HRT22	47.0	28.0	36	12.0	30	6	27.1
HRT25	54.0	42.0	50	14.0	43	15	32.3
HRT28	58.0	44.0	56	15.0	47	14	36.8
HRT30	62.0	48.0	60	16.0	51	14	40.4
HRT5CR	19.0	10.8	15	4.5	12	15	7.8
HRT6CR	19.0	10.8	15	4.5	12	15	7.8
HRT8CR	22.0	12.5	17	6.5	14	14	10.9
HRT10CR	24.0	14.0	19	6.5	15	8	12.2
HRT12CR	32.0	18.5	24	6.5	20	10	15.4
HRT14CR	33.0	19.0	24	7.5	20	8	18.9
HRT15CR	34.0	20.0	25	8.5	21	11	19.0
HRT16CR	35.0	22.0	27	9.5	23	10	19.2
HRT17CR	37.0	23.0	28	9.5	24	12	20.4
HRT18CR	40.0	24.0	30	10.0	26	10	20.4
HRT20CR	41.0	25.0	30	10.0	26	13	22.9
HRT22CR	47.0	28.0	36	12.0	30	6	27.1
HRT25CR	54.0	42.0	50	14.0	43	15	32.3
HRT28CR	58.0	44.0	56	15.0	47	14	36.8
HRT30CR	62.0	48.0	60	16.0	51	14	40.4

Part No.	SøDB(REF)	No Load Rotational Breakaway Torque - Standerd Type lower limit [N·m]	No Load Rotational Breakaway Torque - Standerd Type upper limit [N·m]	No Load Rotational Breakaway Torque - Standerd Type lower limit [kgf・cm]	No Load Rotational Breakaway Torque - Standerd Type upper limit [kgf・cm]	Static Limit load(Radial) [kN]	Static Limit load(Axial) [kN]
HRT5	13.49	0.06	0.68	0.6	6.9	27.94	5.09
HRT6	13.49	0.06	0.68	0.6	6.9	27.94	5.09
HRT8	15.48	0.12	1.13	1.2	11.5	34.02	5.29
HRT10	17.46	0.12	1.13	1.2	11.5	37.65	6.76
HRT12	22.22	0.12	1.13	1.2	11.5	78.06	8.33
HRT14	25.40	0.12	1.13	1.2	11.5	82.96	9.02
HRT15	26.19	0.12	1.13	1.2	11.5	95.32	9.31

HRT

Female Self Lubricating 3 Piece

2023/03/22

HRT16	26.99	0.12	1.13	1.2	11.5	100.71	9.70
HRT17	28.58	0.12	1.13	1.2	11.5	101.40	10.29
HRT18	28.58	0.12	1.13	1.2	11.5	120.62	12.16
HRT20	31.75	0.12	1.13	1.2	11.5	121.30	12.84
HRT22	34.92	0.23	1.80	2.3	18.4	156.21	15.10
HRT25	47.62	0.23	1.80	2.3	18.4	302.43	20.88
HRT28	50.80	0.23	1.80	2.3	18.4	283.70	23.24
HRT30	54.77	0.23	1.80	2.3	18.4	271.93	24.81
HRT5CR	13.49	0.06	0.68	0.6	6.9	27.94	5.09
HRT6CR	13.49	0.06	0.68	0.6	6.9	27.94	5.09
HRT8CR	15.48	0.12	1.13	1.2	11.5	34.02	5.29
HRT10CR	17.46	0.12	1.13	1.2	11.5	37.65	6.76
HRT12CR	22.22	0.12	1.13	1.2	11.5	78.06	8.33
HRT14CR	25.40	0.12	1.13	1.2	11.5	82.96	9.02
HRT15CR	26.19	0.12	1.13	1.2	11.5	95.32	9.31
HRT16CR	26.99	0.12	1.13	1.2	11.5	100.71	9.70
HRT17CR	28.58	0.12	1.13	1.2	11.5	101.40	10.29
HRT18CR	28.58	0.12	1.13	1.2	11.5	120.62	12.16
HRT20CR	31.75	0.12	1.13	1.2	11.5	121.30	12.84
HRT22CR	34.92	0.23	1.80	2.3	18.4	156.21	15.10
HRT25CR	47.62	0.23	1.80	2.3	18.4	302.43	20.88
HRT28CR	50.80	0.23	1.80	2.3	18.4	283.70	23.24
HRT30CR	54.77	0.23	1.80	2.3	18.4	271.93	24.81

Part No.	Static Ultimate Load [kN]	Fatigue Load [kN]	Approx. Weight [g]
HRT5	34.91	5.78	40
HRT6	34.91	5.78	40
HRT8	42.46	7.06	51
HRT10	47.07	7.84	73
HRT12	97.57	16.18	150
HRT14	103.65	17.25	165
HRT15	119.15	19.80	189
HRT16	125.81	20.98	218
HRT17	126.70	21.08	241
HRT18	150.72	25.10	283
HRT20	151.61	25.20	330
HRT22	195.25	32.55	580
HRT25	378.04	63.05	1230

HRT

Female Self Lubricating 3 Piece

2023/03/22

HRT28	354.60	59.13	1620
HRT30	339.89	56.68	1930
HRT5CR	34.91	5.78	40
HRT6CR	34.91	5.78	40
HRT8CR	42.46	7.06	51
HRT10CR	47.07	7.84	73
HRT12CR	97.57	16.18	150
HRT14CR	103.65	17.25	165
HRT15CR	119.15	19.80	189
HRT16CR	125.81	20.98	218
HRT17CR	126.70	21.08	241
HRT18CR	150.72	25.10	283
HRT20CR	151.61	25.20	330
HRT22CR	195.25	32.55	580
HRT25CR	378.04	63.05	1230
HRT28CR	354.60	59.13	1620
HRT30CR	339.89	56.68	1930

Notes

*1 Axial load indicates the smaller value of static load or proof load.

*2 By using SUS630 (CR-TYPE) as the body material, higher fatigue load can be attained.

1. PTFE liner permanently bonded to race I.D.
2. Made to order only.
3. No load rotational breakaway:Low torque type: All size: 0.02N·mMAX (Radial clearance 0.05mmMAX)

*Please consult MinebeaMitsumi for availability of bearings in this series.