

MBYT, MBYT-V

Spherical Self Lubricating High Misalignment

2023/03/22

Feature of a Product

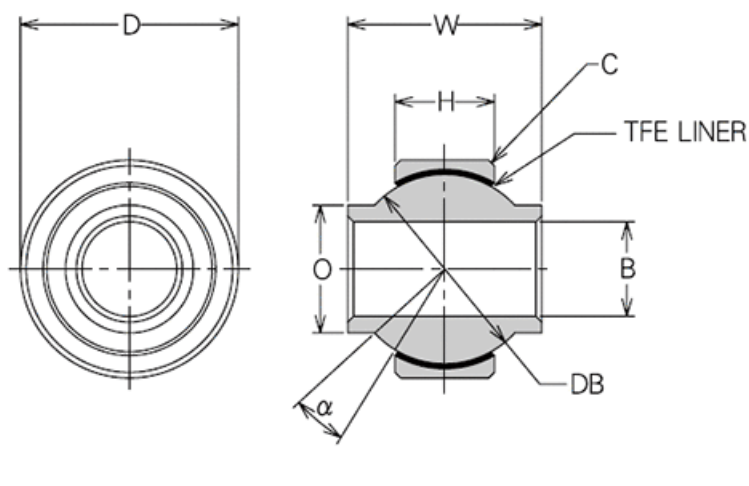
- Self lubricating

The PTFE lining is bonded to the inner diameter of the race. The PTFE Liner acts as a lubricant and therefore no other lubrication is necessary. Thus they are eminently suitable to apply where re-lubrication is impractical or impossible. More over, as they don't require any lubrication, they are effective to lower the maintenance cost. They perform well under slow fluctuation velocity and oscillation load. Therefore PTFE type can induce the difficulties of metal/metal type such as high friction, seizure, fatigue destruction and fretting on the fluctuating surface.

Material

(P/N)	RACE	BALL	LINER
MBYT, MBYT-V	410 Stainless Steel	440C Stainless Steel	PTFE / Fabric

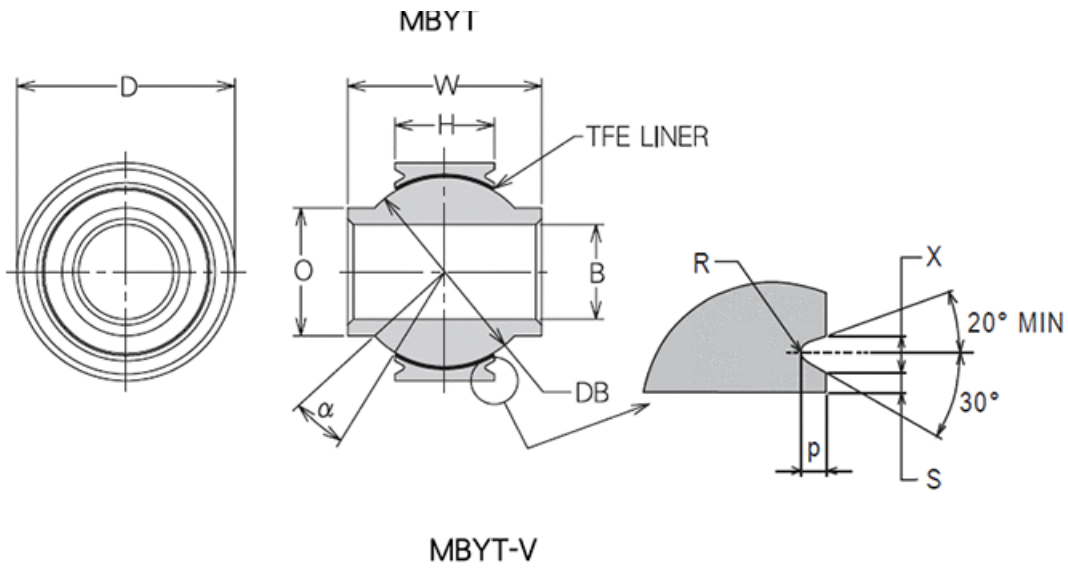
Overall View



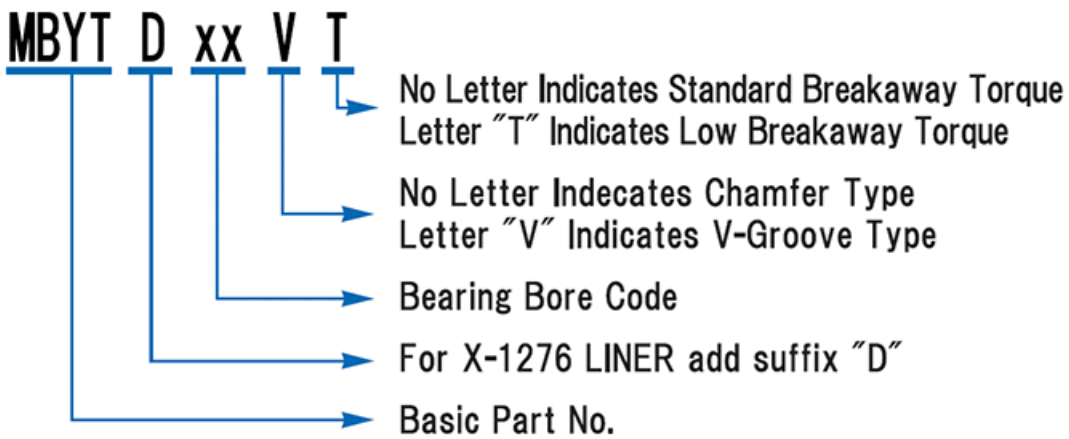
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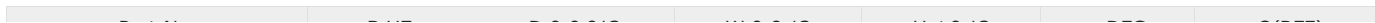


Part Number



Dimension

Dimensions in mm



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Part No.	øB H7	φD 0-0.013	W 0-0.13	H ±0.13	α DEG	øO(REF)
MBYT5/MBYT5V	5	14.0	12.5	5.00	17	8.0
MBYT6/MBYT6V	6	19.0	15.0	6.50	23	10.0
MBYT8/MBYT8V	8	18.0	16.0	6.50	20	10.5
MBYT10/MBYT10V	10	23.0	20.5	8.50	22	13.5
MBYT12/MBYT12V	12	26.0	22.0	8.50	22	16.0
MBYT14/MBYT14V	14	29.0	23.5	10.00	20	19.0
MBYT15/MBYT15V	15	33.0	26.0	12.00	19	20.0
MBYT16/MBYT16V	16	35.0	30.5	14.00	21	21.5
MBYT18/MBYT18V	18	38.0	33.0	14.50	15	23.5
MBYT20/MBYT20V	20	40.0	35.5	15.50	18	25.0
MBYT22/MBYT22V	22	44.0	35.5	15.50	18	29.0

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]	Chamfer C±0.2	Staking groove S 0-0.25
MBYT5/MBYT5V	11.100	0.06	0.57	0.6	5.8	0.5	0.5
MBYT6/MBYT6V	15.100	0.12	0.57	1.2	5.8	0.5	0.5
MBYT8/MBYT8V	15.100	0.12	0.57	1.2	5.8	0.5	0.5
MBYT10/MBYT10V	20.000	0.12	0.57	1.2	5.8	0.6	0.7
MBYT12/MBYT12V	22.500	0.12	0.57	1.2	5.8	0.6	0.7
MBYT14/MBYT14V	26.000	0.12	0.57	1.2	5.8	0.6	0.7
MBYT15/MBYT15V	28.000	0.12	0.57	1.2	5.8	0.6	0.7
MBYT16/MBYT16V	31.800	0.12	0.57	1.2	5.8	0.6	0.7
MBYT18/MBYT18V	32.000	0.12	0.57	1.2	5.8	0.6	0.7
MBYT20/MBYT20V	35.000	0.23	0.90	2.3	9.2	0.8	0.7
MBYT22/MBYT22V	38.800	0.23	0.90	2.3	9.2	1.0	0.7

Part No.	Staking groove X 0-0.25	Staking groove R 0-0.25	Staking groove P 0-0.4	Static Limit load(Radial) [kN]	Static Limit load(Axial) [kN]	Dynamic Load [kN]	Approx. Weight [g]
MBYT5/MBYT5V	1.0	0.4	0.7	18.63	1.96	7.84	8
MBYT6/MBYT6V	1.0	0.4	0.7	36.26	3.43	14.70	18
MBYT8/MBYT8V	1.0	0.4	0.7	36.26	3.43	14.70	15
MBYT10/MBYT10V	1.4	0.5	1.0	63.70	5.97	28.42	32
MBYT12/MBYT12V	1.4	0.5	1.0	72.03	5.97	32.34	42

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MBYT14/MBYT14V	1.4	0.5	1.0	98.00	8.33	44.10	60
MBYT15/MBYT15V	1.4	0.5	1.0	135.24	18.62	60.76	86
MBYT16/MBYT16V	1.4	0.5	1.0	179.34	25.48	80.36	120
MBYT18/MBYT18V	2.0	0.5	1.5	187.18	27.44	83.30	135
MBYT20/MBYT20V	2.0	0.5	1.5	219.52	31.36	98.00	155
MBYT22/MBYT22V	2.0	0.5	1.5	243.04	31.36	108.78	200

Notes

1. PTFE liner permanently bonded to race I.D.
 2. MBYT & MBYT-V weights are similar.
 3. Made to order only.
 4. No Load Rotational Breakaway Torque.
- Low Torque All Size: 0.02N · m MAX (Radial Clearance 0.05mm MAX)

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