

# MBWT, MBWT-V

Spherical Self Lubricating Wide

2023/03/22

## Feature of a Product

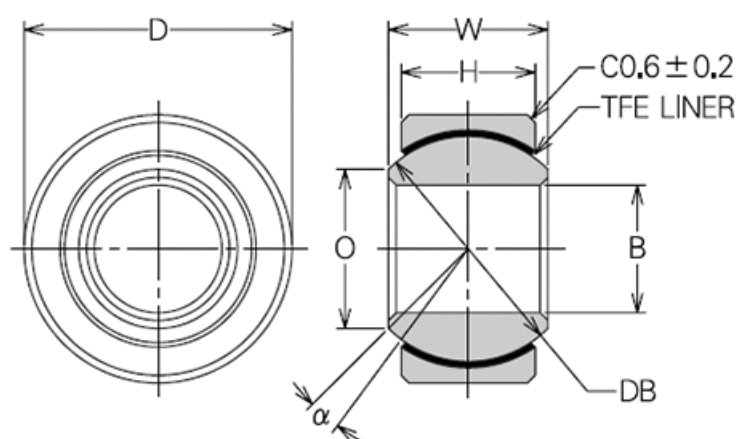
- Self lubricating

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
MBWT, MBWT-V	410 Stainless Steel	440C Stainless Steel	PTFE / Fabric

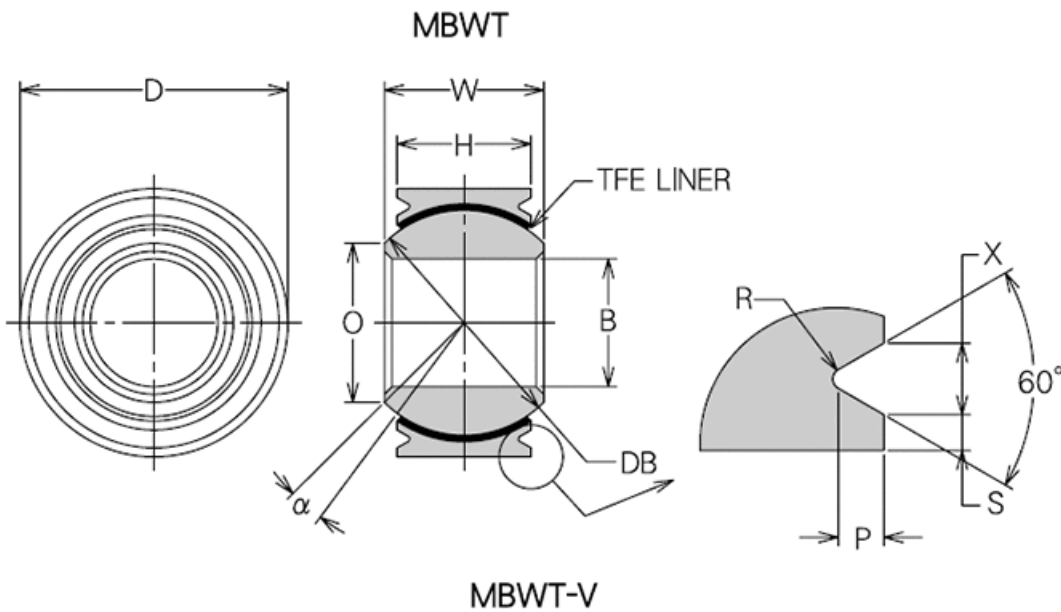
## Overall View



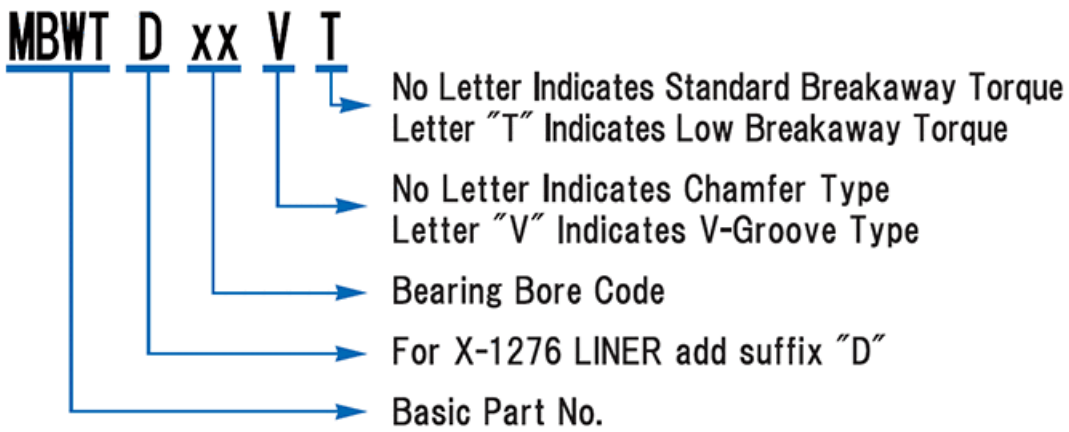
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## Part Number



## 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)
MBWT5/MBWT5V	5	16.0	11.0	8.50	15	7.8
MBWT6/MBWT6V	6	16.0	11.0	8.50	15	7.8
MBWT8/MBWT8V	8	17.5	11.0	8.00	14	10.9
MBWT10/MBWT10V	10	21.0	12.5	10.50	8	12.2
MBWT12/MBWT12V	12	26.0	16.0	13.00	10	15.4
MBWT14/MBWT14V	14	28.0	17.0	14.00	8	18.9
MBWT15/MBWT15V	15	29.0	18.0	14.00	11	19.0
MBWT16/MBWT16V	16	30.0	19.0	15.00	10	19.2
MBWT18/MBWT18V	18	33.0	20.0	16.00	10	20.4
MBWT20/MBWT20V	20	35.0	22.0	16.00	13	22.9
MBWT22/MBWT22V	22	41.0	22.0	19.00	6	27.1
MBWT25/MBWT25V	25	54.0	35.0	25.00	15	32.3
MBWT28/MBWT28V	28	60.0	35.0	25.00	14	36.8
MBWT30/MBWT30V	30	64.0	37.0	26.00	14	40.4
MBWT35/MBWT35V	35	65.0	37.0	29.00	9	44.7
MBWT40/MBWT40V	40	68.0	38.0	31.00	8	46.9
MBWT45/MBWT45V	45	76.0	41.0	33.00	8	54.1
MBWT50/MBWT50V	50	82.0	44.0	35.00	8	60.3

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]	Staking groove S 0-0.25	Staking groove X 0-0.25
MBWT5/MBWT5V	13.494	0.06	0.57	0.6	5.8	0.5	1.0
MBWT6/MBWT6V	13.494	0.12	0.57	1.2	5.8	0.5	1.0
MBWT8/MBWT8V	15.478	0.12	0.57	1.2	5.8	0.5	1.0
MBWT10/MBWT10V	17.462	0.12	0.57	1.2	5.8	0.7	1.4
MBWT12/MBWT12V	22.225	0.12	0.57	1.2	5.8	0.7	1.4
MBWT14/MBWT14V	25.400	0.12	0.57	1.2	5.8	0.7	1.4
MBWT15/MBWT15V	26.194	0.12	0.57	1.2	5.8	0.7	1.4
MBWT16/MBWT16V	26.988	0.12	0.57	1.2	5.8	0.7	2.0
MBWT18/MBWT18V	28.575	0.12	0.57	1.2	5.8	0.7	2.0
MBWT20/MBWT20V	31.750	0.12	0.57	1.2	5.8	0.7	2.0
MBWT22/MBWT22V	34.925	0.23	0.90	2.3	9.2	0.7	2.0
MBWT25/MBWT25V	47.625	0.23	0.90	2.3	9.2	0.7	2.0

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MBWT28/MBWT28V	50.800	0.23	0.90	2.3	9.2	0.7	2.0
MBWT30/MBWT30V	54.769	0.23	0.90	2.3	9.2	0.7	2.0
MBWT35/MBWT35V	58.000	0.33	1.70	3.4	17.3	0.7	2.0
MBWT40/MBWT40V	60.325	0.33	1.70	3.4	17.3	0.7	2.0
MBWT45/MBWT45V	67.866	0.33	1.70	3.4	17.3	0.7	2.0
MBWT50/MBWT50V	74.612	0.33	1.70	3.4	17.3	0.7	2.0

Part No.	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]
MBWT5/MBWT5V	0.4	0.7	43.14	5.98	18.63	14
MBWT6/MBWT6V	0.4	0.7	43.14	5.98	18.63	13
MBWT8/MBWT8V	0.4	0.7	46.09	5.29	20.59	14
MBWT10/MBWT10V	0.5	1.0	68.64	9.21	30.40	23
MBWT12/MBWT12V	0.5	1.0	116.69	21.57	51.97	46
MBWT14/MBWT14V	0.5	1.0	143.17	25.49	63.74	55
MBWT15/MBWT15V	0.5	1.0	148.08	25.49	65.70	59
MBWT16/MBWT16V	0.5	1.5	163.77	29.41	73.54	65
MBWT18/MBWT18V	0.5	1.5	184.36	33.34	82.37	80
MBWT20/MBWT20V	0.5	1.5	204.95	33.34	92.18	91
MBWT22/MBWT22V	0.5	1.5	268.70	47.07	120.62	150
MBWT25/MBWT25V	0.5	1.5	483.46	82.37	216.72	400
MBWT28/MBWT28V	0.5	1.5	515.82	82.37	231.43	490
MBWT30/MBWT30V	0.5	1.5	578.59	89.24	258.89	590
MBWT35/MBWT35V	0.5	1.5	682.54	109.83	303.02	590
MBWT40/MBWT40V	0.5	1.5	759.03	125.52	337.34	615
MBWT45/MBWT45V	0.5	1.5	909.07	142.19	404.03	825
MBWT50/MBWT50V	0.5	1.5	1059.11	156.90	470.71	995

## Notes

1. PTFE liner permanently bonded to race I.D.
  2. MBWT & MBWT-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)

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