

## DX – low maintenance bearing material

### 1. Structure

Acetal-Copolymer with or without indentations, on sinter bronze with steel backing.

### 2. Characteristics

- marginally lubricated bearing material for grease lubricated applications,
- also can work oil lubricated,
- optimum performance under relatively high loads and low speeds,
- wide range of parts available from stock,
- two tolerance ranges available **PM** and **MB** – for cooperation **h8** and **d8** shafts,
- performance similar to white metal,
- lubrication indentations are constant dispensers of lubricant.

### 3. Applications

- industrial: mechanical handling and lifting equipment, machine slides, hydraulic cylinders, hydraulic motors, ski-lifts, pneumatic equipment, medical equipment, textile machinery, agricultural equipment, scientific equipment, etc.
- automotive: steering gear, power steering, pedal bushes, seat slides, king-pin bushes, tailgate pivots, brake caliper bushes, etc.

### 4. Availability

- from stock: cylindrical bushes, thrust washers and strips,
- to order: non standard parts.

### 5. Technical data

Parameter		Unit	Value
Maximum load	static	MPa	140
	dynamic		70
Maximum sliding speed	grease lubricated	m/s	2,5
Maximum p x v factor	grease lubricated	MPa x m/s	2,8
Work temperature	maximum	°C	+130
	minimum		-40
Coefficient of friction	grease lubricated	-	0,06 – 0,12
Surface Ra finish	shaft	µm	0,2 – 0,8
	housing		1,8 – 3,2
Fitting	shaft	-	<b>PM</b> h8
			<b>MB</b> d8
	housing	H7	
Shaft hardness	standard	HB	>200
	for longer service life		>350

### 6. Working conditions

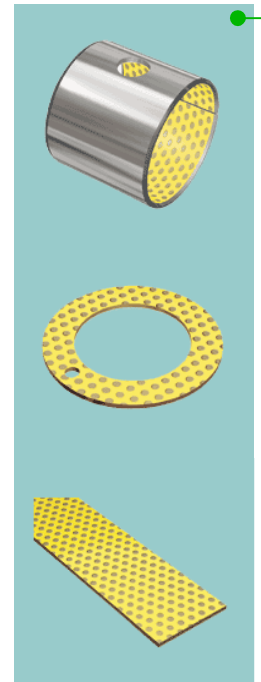
dry	fair
oil lubricated	good
grease lubricated	very good
water lubricated	fair
process fluid lubricated	fair

### 7. Assembly tips

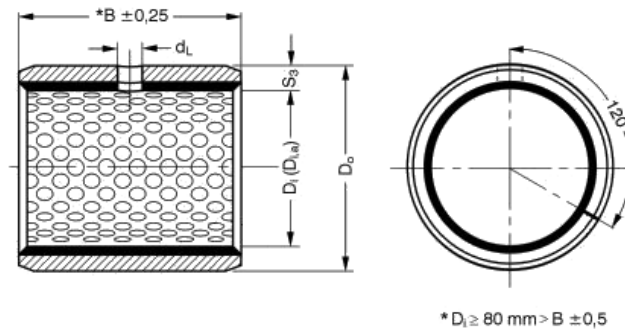
Assemble with stepped shaft in housings with insertion chamfer. Before assembly moisten housing or bush with oil. Fixture: no additional fixture is necessary after press fitting in, however gluing is permissible in special applications or with reciprocating motion.

Caution: Do not use any lubricants containing MoS<sub>2</sub>, graphite or any other solid ingredients (can result with increased wear due to higher friction).

After-machining of **MB DX** bushes is permissible.

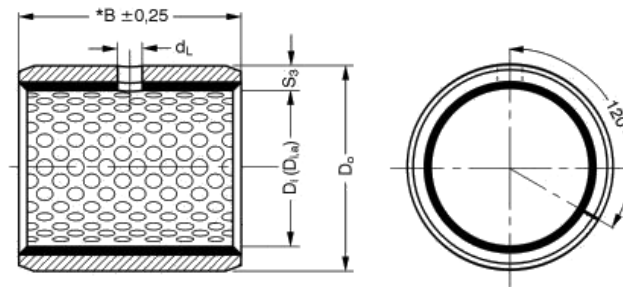


## 8. Series range



Tab. 1. PM DX cylindrical bushes

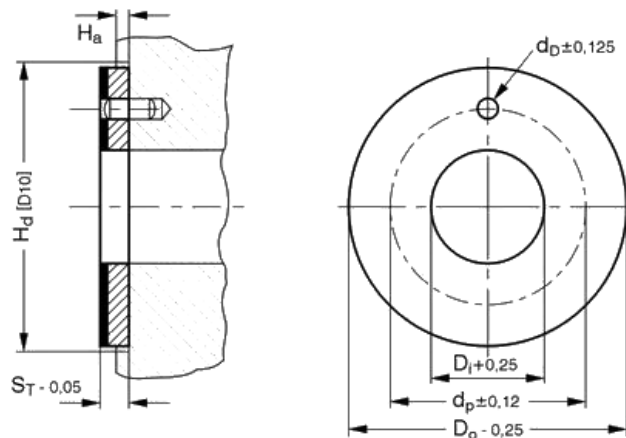
Symbol	Di	Do	B	Symbol	Di	Do	B	Symbol	Di	Do	B	Symbol	Di	Do	B
PM0808DX	8	10	8	PM3220DX	32	36	20	PM8060DX	80	85	60	PM16080DX	160	165	80
PM0810DX	8	10	10	PM3230DX	32	36	30	PM8080DX	80	85	80	PM160100DX	160	165	100
PM0812DX	8	10	12	PM3235DX	32	36	35	PM80100DX	80	85	100	PM17050DX	170	175	50
PM1010DX	10	12	10	PM3240DX	32	36	40	PM8530DX	85	90	30	PM17060DX	170	175	60
PM1012DX	10	12	12	PM3520DX	35	39	20	PM8540DX	85	90	40	PM17080DX	170	175	80
PM1015DX	10	12	15	PM3530DX	35	39	30	PM8560DX	85	90	60	PM170100DX	170	175	100
PM1020DX	10	12	20	PM3535DX	35	39	35	PM8580DX	85	90	80	PM18050DX	180	185	50
PM1210DX	12	14	10	PM3550DX	35	39	50	PM85100DX	85	90	100	PM18060DX	180	185	60
PM1212DX	12	14	12	PM3635DX	36	40	35	PM9040DX	90	95	40	PM18080DX	180	185	80
PM1215DX	12	14	15	PM3720DX	37	41	20	PM9060DX	90	95	60	PM180100DX	180	185	100
PM1220DX	12	14	20	PM4020DX	40	44	20	PM9080DX	90	95	80	PM19050DX	190	195	50
PM1225DX	12	14	25	PM4030DX	40	44	30	PM9090DX	90	95	90	PM19060DX	190	195	60
PM1415DX	14	16	15	PM4040DX	40	44	40	PM90100DX	90	95	100	PM19080DX	190	195	80
PM1420DX	14	16	20	PM4050DX	40	44	50	PM9560DX	95	100	60	PM190100DX	190	195	100
PM1425DX	14	16	25	PM4520DX	45	50	20	PM95100DX	95	100	100	PM190120DX	190	195	120
PM1510DX	15	17	10	PM4530DX	45	50	30	PM10050DX	100	105	50	PM20050DX	200	205	50
PM1512DX	15	17	12	PM4540DX	45	50	40	PM10060DX	100	105	60	PM20060DX	200	205	60
PM1515DX	15	17	15	PM4545DX	45	50	45	PM10080DX	100	105	80	PM20080DX	200	205	80
PM1525DX	15	17	25	PM4550DX	45	50	50	PM10095DX	100	105	95	PM200100DX	200	205	100
PM1615DX	16	18	15	PM5030DX	50	55	30	PM100115DX	100	105	115	PM200120DX	200	205	120
PM1620DX	16	18	20	PM5040DX	50	55	40	PM10560DX	105	110	60	PM22050DX	220	225	50
PM1625DX	16	18	25	PM5045DX	50	55	45	PM105110DX	105	110	110	PM22060DX	220	225	60
PM1815DX	18	20	15	PM5050DX	50	55	50	PM105115DX	105	110	115	PM22080DX	220	225	80
PM1820DX	18	20	20	PM5060DX	50	55	60	PM11060DX	110	115	60	PM220100DX	220	225	100
PM1825DX	18	20	25	PM5520DX	55	60	20	PM110110DX	110	115	110	PM220120DX	220	225	120
PM2010DX	20	23	10	PM5525DX	55	60	25	PM110115DX	110	115	115	PM24050DX	240	245	50
PM2015DX	20	23	15	PM5530DX	55	60	30	PM11550DX	115	120	50	PM24060DX	240	245	60
PM2020DX	20	23	20	PM5540DX	55	60	40	PM11570DX	115	120	70,2	PM24080DX	240	245	80
PM2025DX	20	23	25	PM5550DX	55	60	50	PM12060DX	120	125	60	PM240100DX	240	245	100
PM2030DX	20	23	30	PM5560DX	55	60	60	PM120100DX	120	125	100	PM240120DX	240	245	120
PM2215DX	22	25	15	PM6030DX	60	65	30	PM120110DX	120	125	110	PM25050DX	250	255	50
PM2220DX	22	25	20	PM6040DX	60	65	40	PM12560DX	125	130	60	PM25060DX	250	255	60
PM2225DX	22	25	25	PM6050DX	60	65	50	PM125100DX	125	130	100	PM25080DX	250	255	80
PM2230DX	22	25	30	PM6060DX	60	65	60	PM125110DX	125	130	110	PM250100DX	250	255	100
PM2415DX	24	27	15	PM6070DX	60	65	70	PM13050DX	130	135	50	PM250120DX	250	255	120
PM2420DX	24	27	20	PM6540DX	65	70	40	PM13060DX	130	135	60	PM26050DX	260	265	50
PM2425DX	24	27	25	PM6550DX	65	70	50	PM13080DX	130	135	80	PM26060DX	260	265	60
PM2430DX	24	27	30	PM6560DX	65	70	60	PM130100DX	130	135	100	PM26080DX	260	265	80
PM2515DX	25	28	15	PM6570DX	65	70	70	PM13560DX	135	140	60	PM260100DX	260	265	100
PM2520DX	25	28	20	PM7040DX	70	75	40	PM13580DX	135	140	80	PM260120DX	260	265	120
PM2525DX	25	28	25	PM7050DX	70	75	50	PM14050DX	140	145	50	PM28050DX	280	285	50
PM2530DX	25	28	30	PM7060DX	70	75	60	PM14060DX	140	145	60	PM28060DX	280	285	60
PM283130DX	28	31	30	PM7065DX	70	75	65	PM14080DX	140	145	80	PM28080DX	280	285	80
PM2820DX	28	32	20	PM7070DX	70	75	70	PM140100DX	140	145	100	PM280100DX	280	285	100
PM2825DX	28	32	25	PM7080DX	70	75	80	PM15050DX	150	155	50	PM280120DX	280	285	120
PM2830DX	28	32	30	PM7540DX	75	80	40	PM15060DX	150	155	60	PM30050DX	300	305	50
PM3020DX	30	34	20	PM7560DX	75	80	60	PM15080DX	150	155	80	PM30060DX	300	305	60
PM3025DX	30	34	25	PM7580DX	75	80	80	PM150100DX	150	155	100	PM30080DX	300	305	80
PM3030DX	30	34	30	PM8040DX	80	85	40	PM16050DX	160	165	50	PM300100DX	300	305	100
PM3040DX	30	34	40	PM8050DX	80	85	50	PM16060DX	160	165	60	PM300120DX	300	305	120



\*  $D_i \geq 80 \text{ mm} > B \pm 0,5$

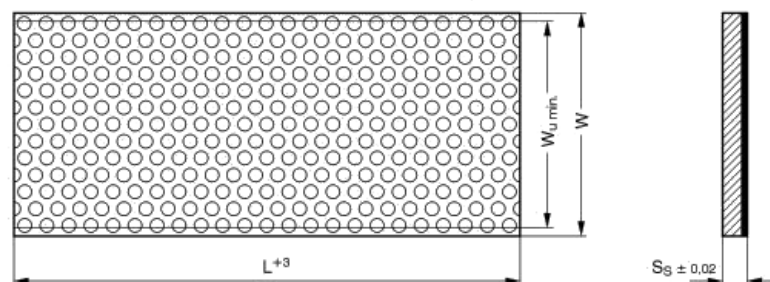
Tab. 2. MB DX cylindrical bushes

Symbol	Di	Do	B	Symbol	Di	Do	B	Symbol	Di	Do	B	Symbol	Di	Do	B
MB0808DX	8	10	8	MB2425DX	24	27	25	MB5560DX	55	60	60	MB100115DX	100	105	115
MB0810DX	8	10	10	MB2430DX	24	27	30	MB6030DX	60	65	30	MB10560DX	105	110	60
MB0812DX	8	10	12	MB2515DX	25	28	15	MB6040DX	60	65	40	MB105110DX	105	110	110
MB1010DX	10	12	10	MB2520DX	25	28	20	MB6060DX	60	65	60	MB105115DX	105	110	115
MB1012DX	10	12	12	MB2525DX	25	28	25	MB6070DX	60	65	70	MB11060DX	110	115	60
MB1015DX	10	12	15	MB2530DX	25	28	30	MB6540DX	65	70	40	MB110115DX	110	115	115
MB1020DX	10	12	20	MB2820DX	28	32	20	MB6550DX	65	70	50	MB11550DX	115	120	50
MB1210DX	12	14	10	MB2825DX	28	32	25	MB6560DX	65	70	60	MB11570DX	115	120	70,2
MB1212DX	12	14	12	MB2830DX	28	32	30	MB6570DX	65	70	70	MB12060DX	120	125	60
MB1215DX	12	14	15	MB3020DX	30	34	20	MB7040DX	70	75	40	MB120100DX	120	125	100
MB1220DX	12	14	20	MB3030DX	30	34	30	MB7050DX	70	75	50	MB125100DX	125	130	100
MB1225DX	12	14	25	MB3040DX	30	34	40	MB7065DX	70	75	65	MB13050DX	130	135	50
MB1415DX	14	16	15	MB3220DX	32	36	20	MB7070DX	70	75	70	MB13060DX	130	135	60
MB1420DX	14	16	20	MB3230DX	32	36	30	MB7080DX	70	75	80	MB130100DX	130	135	100
MB1425DX	14	16	25	MB3235DX	32	36	35	MB7540DX	75	80	40	MB13560DX	135	140	60
MB1510DX	15	17	10	MB3240DX	32	36	40	MB7560DX	75	80	60	MB13580DX	135	140	80
MB1512DX	15	17	12	MB3520DX	35	39	20	MB7580DX	75	80	80	MB14060DX	140	145	60
MB1515DX	15	17	15	MB3530DX	35	39	30	MB8040DX	80	85	40	MB140100DX	140	145	100
MB1525DX	15	17	25	MB3550DX	35	39	50	MB8060DX	80	85	60	MB15060DX	150	155	60
MB1615DX	16	18	15	MB3720DX	37	41	20	MB8080DX	80	85	80	MB15080DX	150	155	80
MB1620DX	16	18	20	MB4020DX	40	44	20	MB80100DX	80	85	100	MB150100DX	150	155	100
MB1625DX	16	18	25	MB4030DX	40	44	30	MB8530DX	85	90	30				
MB1815DX	18	20	15	MB4040DX	40	44	40	MB8540DX	85	90	40				
MB1820DX	18	20	20	MB4050DX	40	44	50	MB8560DX	85	90	60				
MB1825DX	18	20	25	MB4520DX	45	50	20	MB8580DX	85	90	80				
MB2010DX	20	23	10	MB4530DX	45	50	30	MB85100DX	85	90	100				
MB2015DX	20	23	15	MB4540DX	45	50	40	MB9040DX	90	95	40				
MB2020DX	20	23	20	MB4545DX	45	50	45	MB9060DX	90	95	60				
MB2025DX	20	23	25	MB4550DX	45	50	50	MB9090DX	90	95	90				
MB2030DX	20	23	30	MB5040DX	50	55	40	MB90100DX	90	95	100				
MB2215DX	22	25	15	MB5060DX	50	55	60	MB9560DX	95	100	60				
MB2220DX	22	25	20	MB5520DX	55	60	20	MB95100DX	95	100	100				
MB2225DX	22	25	25	MB5525DX	55	60	25	MB10050DX	100	105	50				
MB2230DX	22	25	30	MB5530DX	55	60	30	MB10060DX	100	105	60				
MB2415DX	24	27	15	MB5540DX	55	60	40	MB10080DX	100	105	80				
MB2420DX	24	27	20	MB5550DX	55	60	50	MB10095DX	100	105	95				



Tab. 3. Thrust washers

Symbol	Di	Do	ST	dD	Dp	Ha
<b>WC08DX</b>	10	20	1,58			0,95-1,2
<b>WC10DX</b>	12	24	1,58	1,75	18	0,95-1,2
<b>WC12DX</b>	14	26	1,58	2,25	20	0,95-1,2
<b>WC14DX</b>	16	30	1,58	2,25	22	0,95-1,2
<b>WC16DX</b>	18	32	1,58	2,25	25	0,95-1,2
<b>WC18DX</b>	20	36	1,58	3,25	28	0,95-1,2
<b>WC20DX</b>	22	38	1,58	3,25	30	0,95-1,2
<b>WC22DX</b>	24	42	1,58	3,25	33	0,95-1,2
<b>WC24DX</b>	26	44	1,58	3,25	35	0,95-1,2
<b>WC25DX</b>	28	48	1,58	4,25	38	0,95-1,2
<b>WC30DX</b>	32	54	1,58	4,25	43	0,95-1,2
<b>WC35DX</b>	38	62	1,58	4,25	50	0,95-1,2
<b>WC40DX</b>	42	66	1,58	4,25	54	0,95-1,2
<b>WC45DX</b>	48	74	2,6	4,25	61	1,45-1,7
<b>WC50DX</b>	52	78	2,6	4,25	65	1,45-1,7



Tab. 4. Plates

Symbol	L	W	Wu	Ss
<b>S10080DX</b>	500	92	80	1,05
<b>S10150DX</b>	500	160	150	1,05
<b>S15190DX</b>	500	200	190	1,54
<b>S20190DX</b>	500	200	190	2,03
<b>S25190DX</b>	500	200	190	2,55