

## HPM

### FIBER REINFORCED COMPOSITE HYDRO BEARING



### APPLICATIONS

**Industrial** – Servo-motor bearings, operating ring sliding segments, linkage bearings, wicket gate bearings, guide vane bearings, intake gate sliding segments, intake gate roller bearings, spillway gate bearings, trash rate bearings, fish screen bearings, trunnion bearings, blade bearings, injector bearings, deflector bearings, ball and butterfly trunnion bearings, etc.

### CHARACTERISTICS

- Designed for hydropower applications
- High load capacity
- Excellent shock and edge loading capacity
- Low friction, superior wear rate and bearing life
- Excellent corrosion resistance
- Dimensionally stable - very low water absorption, low swelling
- Environmentally friendly

### AVAILABILITY

**Bearing forms available in standard dimensions:**  
Plain cylindrical bushes

**Bearing forms made to order:** cylindrical bushes with non-standard dimensions, customized bearing designs



BEARING PROPERTIES		UNITS	VALUE
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**GENERAL**

Maximum load, p	Static	N/mm <sup>2</sup>	210
	Dynamic	N/mm <sup>2</sup>	140
Operating temperature	Min	°C	- 196
	Max	°C	160

**DRY**

Maximum sliding speed, U		m/s	0.13
Maximum pU factor		N/mm <sup>2</sup> x m/s	1.23
Coefficient of friction, f			0.03 - 0.12*

**RECOMMENDATIONS**

Shaft surface roughness, Ra		µm	0.2 - 0.8
Shaft surface hardness	Normal	HB	> 180
	For longer service life	HB	> 480

\* Depending on operating conditions

**OPERATING PERFORMANCE**

Dry	Very Good
Oil lubricated	Fair
Grease lubricated	Poor
Water lubricated	Very Good
Process fluid lubricated	Poor

**FOR SUPERIOR PERFORMANCE**

Oil lubricated	GAR-FIL / HPF
Grease lubricated	DX / DX10
Process fluid lubricated	GAR- FIL / HPF

**MICROSECTION**

