

TD-106-1 Rev No. 5	Form No.	 HYDERABAD	PRODUCT STANDARD PUMPS HYDERABAD		FP50629 Rev No. 10 Page 1 of 4
COPYRIGHT AND CONFIDENTIAL The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED, It must not be used directly or indirectly in any way detrimental to the interest of the company. <u>FORGED RINGS/BUSHES/SLEEVES</u> 1.0 <u>SCOPE</u> This standard specifies the requirements of stainless steel forged rings/bushes/sleeves used in Boiler feed pumps, Booster pumps and condensate pumps of Super critical power plants. 2.0 <u>TECHNICAL REQUIREMENTS:</u> Condition of delivery, heat treatment, chemical, mechanical, non-destructive tests and other technical delivery conditions shall be as per the relevant standards mentioned in the Variant Table. 3.0 <u>DIMENSIONAL REQUIREMENTS:</u> Dimensions of the rough machined forgings shall be as per the Variant Table. 4.0 <u>INSPECTION AT SUPPLIER'S WORKS:</u> All the components shall be inspected at supplier's works by BHEL inspector or BHEL appointed Third Party Inspection Agency (TPIA). The inspector shall have free entry and access to all areas where manufacture of the ordered forgings is carried out. All reasonable facilities shall be provided to him including labor where necessary. The inspector shall be given sufficient advance intimation to witness/inspect the components at various stages during manufacture. 5.0 <u>TEST CERTIFICATES :</u> The supplier shall furnish 3 copies of test certificates duly certified by M/s. Lloyds (in English) containing the following information. a) Dimensional Report b) Chemical analysis c) Mechanical properties d) Heat Treatment e) NDT results (Ultrasonic and Magnetic Particle, D.P. Test) 6.0 <u>MARKING:</u> The following details shall be engraved on each forging for easy identification. Drawing No: ex. FP50629, Var. No. xx Melt No/Heat No. xxxxxx					





PRODUCT STANDARD

PUMPS

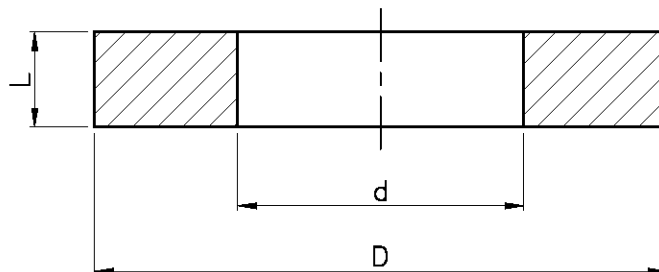
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FORGED RINGS/BUSHES/SLEEVES



VARIANT TABLE:

All dimensions are in mm.

VAR. NO.	D ±1.0	d ±1.0	L ±1.0	MATL SPECN	WT. kg.	MATL CODE	REMARKS
01	190	135	20	AA19321	2.2	FP9750629019	MDG405 Split ring
02	190	135	60	AA19321	6.6	FP9750629027	MDG405 Deflector
03	420	290	80	AA19321	46.0	FP9750629035	MDG405, MDG366 Bushing inner casing end side
04	225	150	60	AA19322	10.4	FP9750629043	MDG405 Balancing sleeve coup. side
05	230	150	150	AA19322	28.2	FP9750629051	MDG405 Balancing sleeve end side
06	210	102	30	AA19321	6.2	FP9750629060	144RND-660MW&800MW Split ring 2nd&over
07	170	100	560	AA19321	65.2	FP9750629078	144RND-660MW&800MW Inter shaft coupling
08	200	90	50	AA19321	9.8	FP9750629086	144RND-660MW&800MW Adjust ring coupling
09	330	160	250	HY19363	128.3	FP9750629094	MDG405 Brg box coup side
10	390	160	505	HY19363	393.6	FP9750629108	MDG405 Brg box end side
11	260	115	205	HY19363	68.9	FP9750629116	MLC400 Brg box coup side
12	260	115	365	HY19363	122.3	FP9750629124	MLC400 Brg box end side
13	320	140	220	HY19363	112.3	FP9750629132	MDG346, MDG366 Brg box coup side
14	320	140	420	HY19363	214.3	FP9750629140	MDG346, MDG366 Brg box end side
15	340	160	260	HY19363	144.3	FP9750629159	MDG455 Brg box coup side
16	400	160	510	HY19363	422.6	FP9750629167	MDG455 Brg box end side
17	330	135	220	HY19363	123.0	FP9750629175	MLC450 Brg box coup side
18	330	135	420	HY19363	235.0	FP9750629183	MLC450 Brg box end side
19	160	120	20	AA19321	0.65	FP9750629191	MDG346 Split ring
20	380	270	70	AA19321	30.9	FP9750629205	MDG346 Bushing inner casing end side
21	170	110	60	AA19321	6.3	FP9750629213	MDG346 Deflector
22	630	450	70	HY19363	83.8	FP9750629221	MDG346, Flange Bearing Box Bracket,Coup&End
23	540	380	100	HY19363	90.8	FP9750629230	MDG346, Body Bearing Box Bracket,Coup&End
24	190	120	160	AA19322	12.4	FP9750629248	MDG346 Balancing sleeve end side
25	240	165	270	AA19322	50.6	FP9750629256	MDG455 Pr. reducing bush Coup&End



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VARIANT TABLE:

All dimensions are in mm.

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COPYRIGHT AND CONFIDENTIAL The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED, It must not be used directly or indirectly in any way detrimental to the interest of the company.		RECORD OF REVISIONS				
		Rev. No.	Date	Revision Details	Revised By	Approved By
		01	24.08.12	Var.nos. 06 to 18 added	MSR	PS
		02	18.10.12	Var.nos. 19 to 24 added	JNM	MSR
		03	10.03.13	Var.no. 25 added	ASK	MSR
		04	22.03.13	Var.nos. 26 to 29 added	ASK	MSR
		05	23.09.14	Var.no. 30 added. Matl specn revised to AA19322 for Var.nos.04,05,24,25,27&28, in line with MHI specn SUS420J2Q.	MSR	PS
		06	04.12.14	Var.no. 31 added	ASK	MSR
		07	19.01.15	Var.no. 32 to 35 added. Var. Nos. 03, 13, 14 MDG366 added in remarks.	KSR	MSR
		08	23.04.15	Var.no. 36 added	ASK	MSR
		09	01.11.16	Var.nos. 37 & 38 added	MSRAM	KHRK
		10	01.02.18	Var.no. 39 & 40 added	JNM	MSR
Ref. Doc.						