

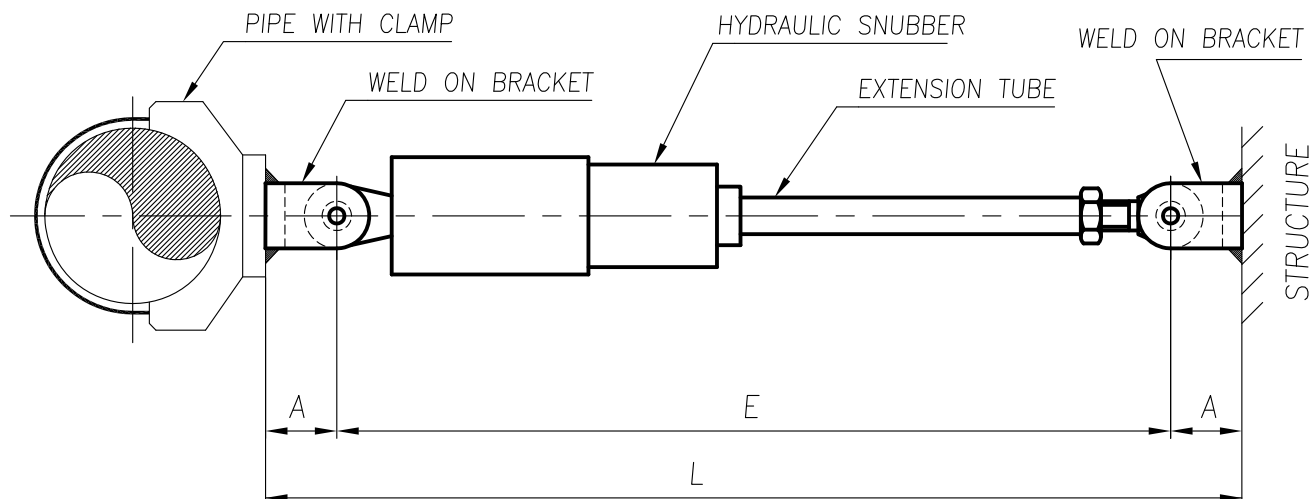
PIPING CENTRE

DATA SHEET FOR HYDRAULIC SNUBBER

PROJECT : OPGCL IB VALLEY 2X660MW, UNITS 3&4

CUSTOMER : ODISHA POWER GENERATION CORPORATION LTD.

CUST No. : 7210 & 7211



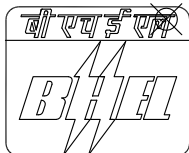
SL No.	TAG No.	DESIGN LOAD $\pm$ KN	THERMAL MOVEMENT ALONG SHOCK - ABSORBER AXIS IN mm	L mm	QTY./UNIT No.	WELD ON BRACKET QTY./UNIT No.	REMARKS
01	LPBP-SX1	35	25 (EXPANSION)	750	1	2	
02	LPBP-SX2	30	40 (EXPANSION)	950	1	2	
03	LPBP-SY1	70	25 (COMPRESSION)	3000	1	2	
04	LPBP-SY2	85	25 (COMPRESSION)	3050	1	2	

NOTE :-

REFER TECHNICAL SPECIFICATION ENCLOSED HEREWITH.

PREPARED TRINADHA RAO	APPROVED SESHAGIRI	DATE 30-12-2015	DRG. No. PC-OPGCL-SKT-01	REV. 00
--------------------------	-----------------------	--------------------	-----------------------------	------------

SHEET 01 OF 02



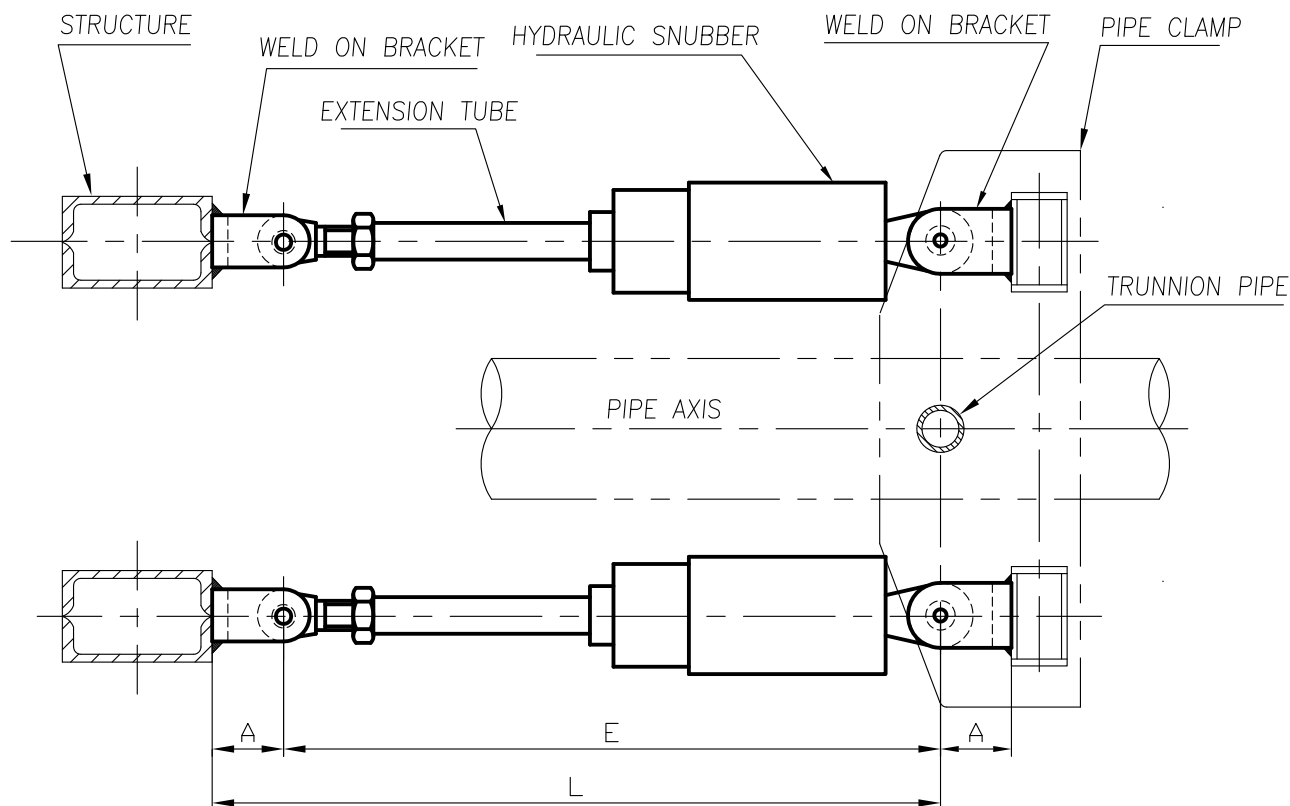
PIPING CENTRE

DATA SHEET FOR HYDRAULIC SNUBBER

PROJECT : OPGCL IB VALLEY 2X660MW, UNITS 3&4

CUSTOMER : ODISHA POWER GENERATION CORPORATION LTD.

CUST No. : 7210 & 7211



SL No.	TAG No.	DESIGN LOAD $\pm$ KN	THERMAL MOVEMENT ALONG SHOCK - ABSORBER AXIS IN mm	L mm	QTY./ UNIT No.	WELD ON BRACKET QTY./UNIT No.	REMARKS
01	CRH-SX1	35	50 (EXPANSION)	875	2	4	
02	HRH-SZ1	80	35 (COMPRESSION)	2375	2	4	
03	HRH-SZ2	75	35 (COMPRESSION)	2375	2	4	

NOTE :-

REFER TECHNICAL SPECIFICATION ENCLOSED HEREWITH.

LOAD INDICATED IS FOR EACH SNUBBER

PREPARED TRINADHA RAO	APPROVED SESHAGIRI	DATE 30-12-2015	DRG. No. PC-OPGCL-SKT-01	REV. 00
--------------------------	-----------------------	--------------------	-----------------------------	------------

SHEET 02 OF 02



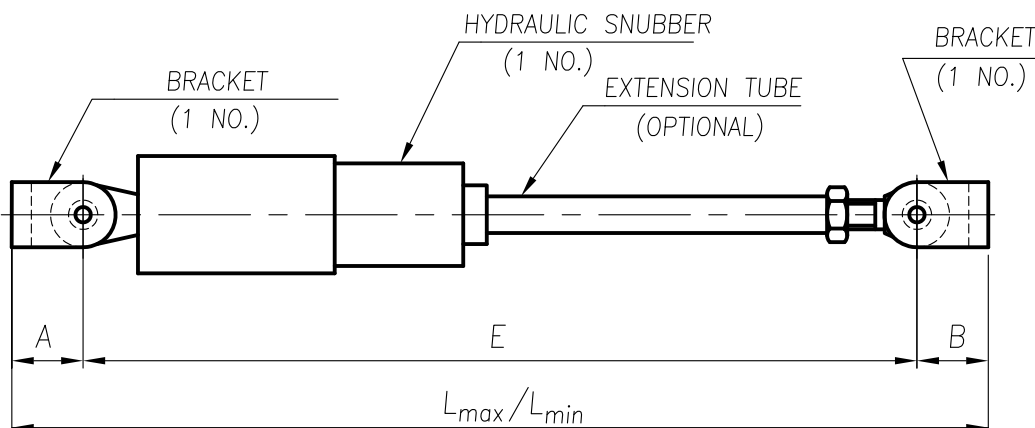
PIPING CENTRE

DATA SHEET FOR HYDRAULIC SNUBBER

PROJECT : NABINAGAR STPP 3x660 MW

CUSTOMER : NTPC LTD

CUST No. : 7200,7201 & 7202



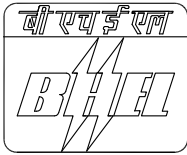
NOTES :-

1. REFER TECHNICAL SPECIFICATION ENCLOSED HERewith.
2. SCOPE OF EACH SNUBBER ASSEMBLY INCLUDES HYDRAULIC SNUBBER(WITH OR WITHOUT EXTENSION TUBE) & BRACKET ASSEMBLIES.
3. STROKE LENGTHS INDICATED IN THE BELOW TABLE ARE INCLUSIVE OF CUSHION OF 25mm ON EITHER SIDE.
4. L_{max} & L_{min} CAN BE VARIED BASED ON SELECTED STROKE LENGTH. EXCESS STROKE LENGTH OF SELECTED SNUBBER MAY BE ADDED TO L_{max} IN CASE OF EXPANSION & SUBTRACTED FROM L_{min} IN CASE OF COMPRESSION FOR DERIVING FINAL L_{max} & L_{min} .
5. DIMENSIONS A,B & E SHALL BE FIXED BY VENDOR WITH REF TO SELECTED L_{max} & L_{min} AND STROKE LENGTH.

SL No.	TAG No.	DESIGN LOAD $\pm$ KN	MINIMUM STROKE LENGTH IN mm	L_{max} IN mm	L_{min} IN mm	SNUBBER QTY./UNIT NO.	WELD ON BRACKET QTY./UNIT NO.	REMARKS
01	MS-SX1	80	120 (COMPRESSION)	1235	1115	2	4	
02	MS-SX2	110	120 (COMPRESSION)	1235	1115	2	4	
03	MS-SY1	55	80 (COMPRESSION)	1025	945	1	2	
04	MS-SY2	85	80 (COMPRESSION)	1025	945	1	2	
05	MS-SZ1	215	140 (EXPANSION)	1715	1575	2	4	
06	MS-SZ2	60	140 (EXPANSION)	1655	1515	2	4	
07	HPBP-SX1	60	100 (COMPRESSION)	2385	2285	1	2	

PREPARED	APPROVED	DATE	DRG. No.	REV.
BAHADUR SINGH	M.MANO	05.01.2016	4-00-301-40813	04

SHEET 01 OF 02



PIPING CENTRE

DATA SHEET FOR HYDRAULIC SNUBBER

PROJECT : NABINAGAR STPP 3x660 MW

CUSTOMER : NTPC LTD

CUST No. : 7200,7201 & 7202

SL No.	TAG No.	DESIGN LOAD ± KN	MINIMUM STROKE LENGTH IN mm	L _{max} IN mm	L _{min} IN mm	SNUBBER QTY./UNIT NO.	WELD ON BRACKET QTY./UNIT NO.	REMARKS
08	HRH-SX1	90	100 (EXPANSION)	1875	1775	2	4	
09	HRH-SX2	90	100 (EXPANSION)	1875	1775	2	4	
10	HRH-SY1	205	260 (EXPANSION)	2435	2175	1	2	
11	HRH-SY2	350	260 (EXPANSION)	1935	1675	1	2	
12	HRH-SZ1	200	170 (COMPRESSION)	1625	1455	2	4	
13	HRH-SZ2	90	160 (COMPRESSION)	2125	1965	2	4	
14	LPBP-SX1	40	100 (COMPRESSION)	4900	4800	2	4	
15	LPBP-SX2	60	120 (COMPRESSION)	1600	1480	2	4	01 03
16	LPBP-SX3	90	100 (EXPANSION)	1450	1350	1	2	
17	LPBP-SX4	50	120 (COMPRESSION)	1600	1480	2	4	01 03
18	LPBP-SY1	85	200 (COMPRESSION)	1075	875	1	2	
19	LPBP-SY2	70	130 (EXPANSION)	3105	2975	1	2	
20	LPBP-SY3	35	100 (COMPRESSION)	3325	3225	2	4	
21	LPBP-SY4	35	100 (EXPANSION)	1475	1375	2	4	02
22	LPBP-SZ1	120	110 (COMPRESSION)	885	775	1	2	04
23	CRH-SZ1	140	200 (COMPRESSION)	2975	2775	1	2	
24	CRH-SZ2	395	160 (COMPRESSION)	4025	3865	1	2	

REV 04 PREPARED: BAHADUR SINGH

DT.25.05.16 APPROVED: R SESHAGIRI

TAG NO:LPBP-SZ1 MODIFIED TO COMPRESSION FROM EXPANSION

REV 01 PREPARED: BAHADUR SINGH

DT.11.02.16 APPROVED: M.MANO

REV 02 PREPARED: BAHADUR SINGH

DT.11.03.16 APPROVED: M.MANO

REV 03 PREPARED: BAHADUR SINGH

DT.19.05.16 APPROVED: R SESHAGIRI

LPBP-SX2 & LPBP-SX4 ARE MODIFIED AS PER LATEST INPUT

LENGTH OF LPBP-SY4 IS MODIFIED AS PER LATEST INPUT

DESIGN LOAD MODIFIED FOR TAG NO'S:LPBP-SX2 & LPBP-SX4

PREPARED

APPROVED

DATE

DRG. No.

REV.

BAHADUR SINGH

M.MANO

05.01.2016

4-00-301-40813

04

SHEET 02 OF 02



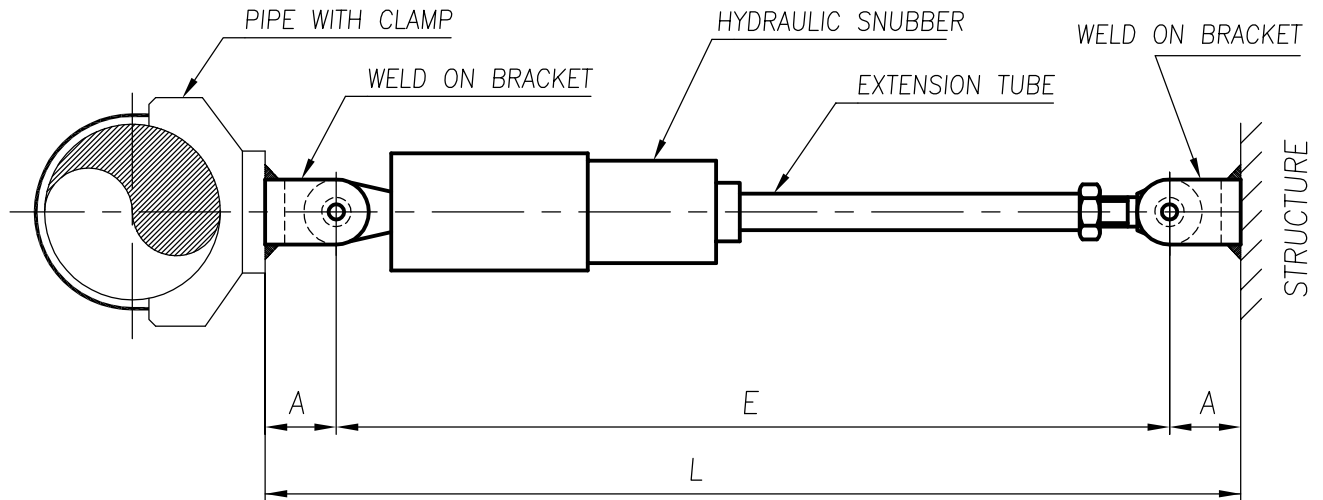
PIPING CENTRE

DATA SHEET FOR HYDRAULIC SNUBBER

PROJECT : NEYEVLI 2X500MW

CUST No. : 7232 & 7233

INDENT No. : —



SL No.	TAG No.	DESIGN LOAD $\pm$ KN	THERMAL MOVEMENT ALONG SHOCK – ABSORBER AXIS IN mm	L mm	QTY./UNIT No.	WELD ON BRACKET QTY./UNIT No.	REMARKS
01	MS-YS1	$\triangle_{01}$ 100	90 (EXPANSION)	1750	1	2	
02	MS-YS2	$\triangle_{01}$ 100	130 (EXPANSION)	1750	1	2	
03	MS-YS4	$\triangle_{01}$ 100	80 (EXPANSION)	1750	1	2	
04	MS-YS5	$\triangle_{01}$ 100	130 (EXPANSION)	1750	1	2	
05	HRH-XS1	130	150 (COMPRESSION)	850	1	2	
06	HRH-XS2	130	150 (COMPRESSION)	850	1	2	
07	HRH-XS3	100	140 (EXPANSION)	1100	1	2	
08	LPBP-YS1	25	70 (COMPRESSION)	1600	1	2	
09	LPBP-YS2	55	80 (COMPRESSION)	1600	1	2	
10	CRH-XS1	30	70 (EXPANSION)	1200	1	2	

NOTE :-

REFER TECHNICAL SPECIFICATION ENCLOSED HEREWITH.

PREPARED	APPROVED	DATE	DRG. No.	REV.
VIGNESH KUMAR	KONDAPANAIDU	09.04.16	PC-NEYEVLI-SKT-05	01
			SHEET 01 OF 02	



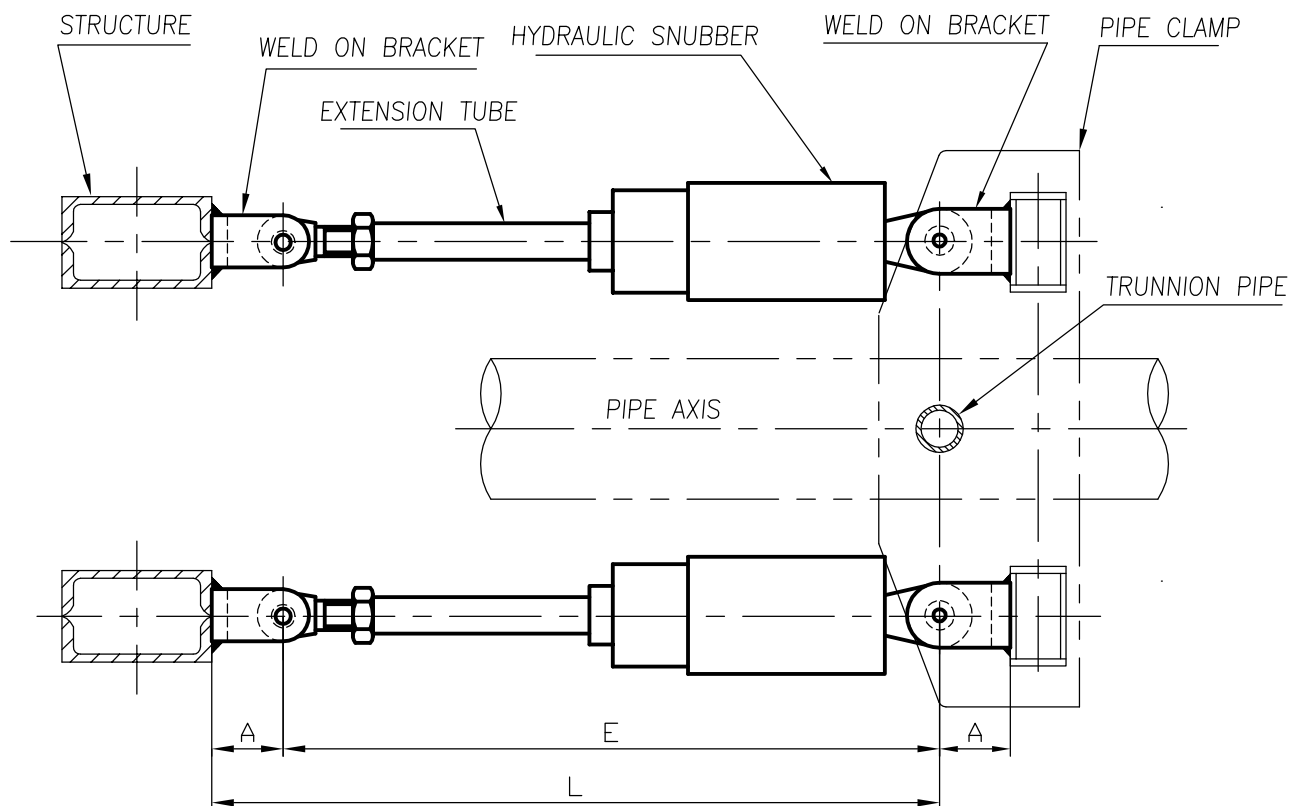
DATA SHEET FOR HYDRAULIC SNUBBER

PROJECT : NEYEVLI 2X500MW

PIPING CENTRE

CUST No. : 7232 & 7233

INDENT No. : —

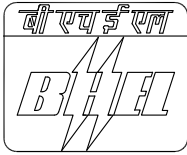


SL No.	TAG No.	DESIGN LOAD $\pm$ KN	THERMAL MOVEMENT ALONG SHOCK - ABSORBER AXIS IN mm	L mm	QTY./ UNIT No.	WELD ON BRACKET QTY./UNIT No.	REMARKS
01	LPBP-XS1	20	30 (EXPANSION)	1500	2	4	
02	LPBP-XS2	40	40 (COMPRESSION)	1500	2	4	
03	HRH-YS1	250	270 (EXPANSION)	850	2	4	
04	HRH-YS2	250	290 (EXPANSION)	850	2	4	
05	MS-YS3	125	130 (EXPANSION)	1400	2	4	
06	MS-YS6	140	120 (EXPANSION)	1400	2	4	

NOTE :-

REFER TECHNICAL SPECIFICATION ENCLOSED HERewith.
LOAD INDICATED IS FOR EACH SNUBBER

PREPARED	APPROVED	DATE	DRG. No.	REV.
VIGNESH KUMAR	KONDAPANAIDU	19.04.16	PC-NEYEVLI-SKT-05	01
			SHEET 02 OF 02	



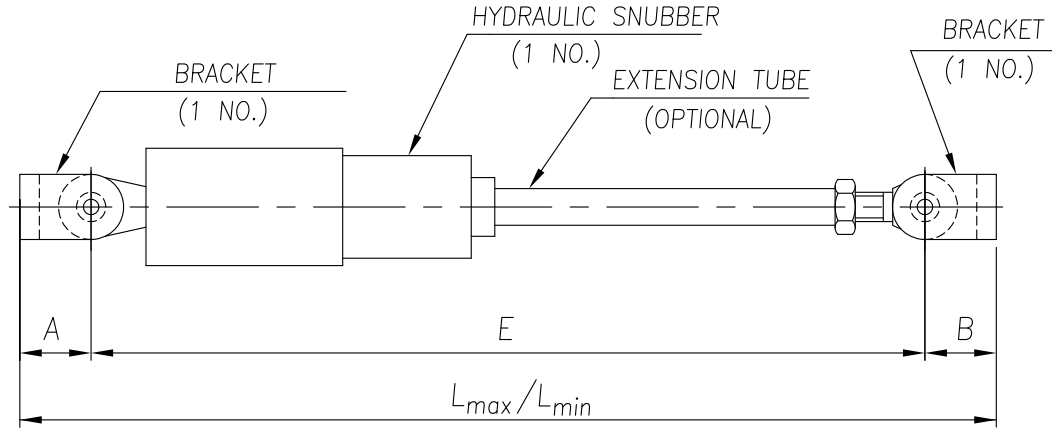
PIPING CENTRE

DATA SHEET FOR HYDRAULIC SNUBBER

PROJECT : DARLIPALLI STPP 2x800MW

CUSTOMER : NTPC LTD

CUST No. : 7242 & 7243

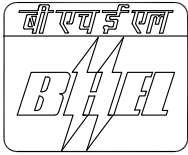


NOTES :-

1. REFER TECHNICAL SPECIFICATION ENCLOSED HERewith.
2. SCOPE OF EACH SNUBBER ASSEMBLY INCLUDES HYDRAULIC SNUBBER(WITH OR WITHOUT EXTENSION TUBE) & BRACKET ASSEMBLIES.
3. STROKE LENGTHS INDICATED IN THE BELOW TABLE ARE INCLUSIVE OF CUSHION OF 25mm ON EITHER SIDE.
4. L_{max} & L_{min} CAN BE VARIED BASED ON SELECTED STROKE LENGTH. EXCESS STROKE LENGTH OF SELECTED SNUBBER MAY BE ADDED TO L_{max} IN CASE OF EXPANSION & SUBTRACTED FROM L_{min} IN CASE OF COMPRESSION FOR DERIVING FINAL L_{max} & L_{min} .
5. DIMENSIONS A,B & E SHALL BE FIXED BY VENDOR WITH REF TO SELECTED L_{max} & L_{min} AND STROKE LENGTH.

SL No.	TAG No.	DESIGN LOAD $\pm$ KN	MINIMUM STROKE LENGTH IN mm	L_{max} IN mm	L_{min} IN mm	SNUBBER QTY./UNIT NO.	WELD ON BRACKET QTY./UNIT NO.	REMARKS
01	MS-SX2	102	60 (COMPRESSION)	1100	1040	1	2	
02	MS-SZ2	140	118 (COMPRESSION)	1200	1082	1	2	
03	MS-SX1	120	82 (COMPRESSION)	1100	1018	1	2	
04	MS-SZ1	200	101 (COMPRESSION)	1200	1099	1	2	
05	MS-SY3	50	72 (EXPANSION)	2422	2350	1	2	
06	HPBP-SX1	100	109 (COMPRESSION)	2640	2531	1	2	
07	HRH-SY3	434	98 (EXPANSION)	2957	2859	1	2	

PREPARED	APPROVED	DATE	DRG. No.	REV.
PRADEEP KUMAR	SESHAGIRI	14.07.16	4-00-301-40991	00
SHEET 01 OF 03				



PIPING CENTRE

DATA SHEET FOR HYDRAULIC SNUBBER

PROJECT : DARLIPALLI STPP 2x800MW

CUSTOMER : NTPC LTD

CUST No. : 7242 & 7243

SL No.	TAG No.	DESIGN LOAD ± KN	MINIMUM STROKE LENGTH IN mm	L_{max} IN mm	L_{min} IN mm	SNUBBER QTY./UNIT NO.	WELD ON BRACKET QTY./UNIT NO.	REMARKS
08	HRH-SX1	250	63 (COMPRESSION)	2690	2627	1	2	
09	LPBP-SY1	80	116 (COMPRESSION)	2076	1960	1	2	
10	CRH-SZ1	120	178 (COMPRESSION)	1300	1122	1	2	
11	CRH-SX1	254	158 (COMPRESSION)	2010	1852	1	2	
12	CRH-SX2	242	158 (COMPRESSION)	2010	1852	1	2	

PREPARED

PRADEEP KUMAR

APPROVED

SESHAGIRI

DATE

14.07.16

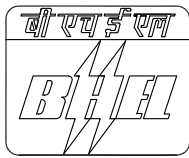
DRG. No.

4-00-301-40991

REV.

00

SHEET 02 OF 03



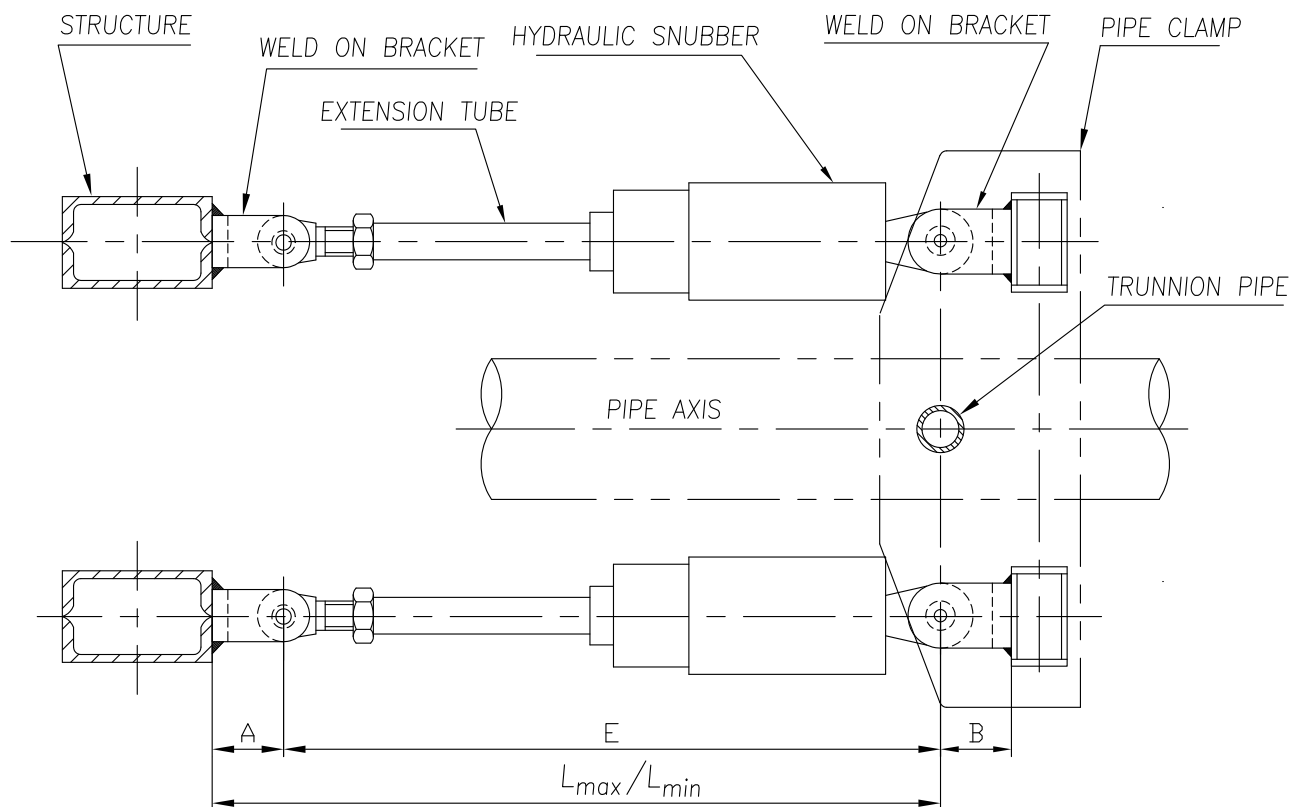
PIPING CENTRE

DATA SHEET FOR HYDRAULIC SNUBBER

PROJECT : DARLIPALLI STPP 2x800MW

CUSTOMER : NTPC LTD

CUST No. : 7242 & 7243



SL No.	TAG No.	DESIGN LOAD ± KN	MINIMUM STROKE LENGTH IN mm	L_{max} IN mm	L_{min} IN mm	SNUBBER QTY./UNIT NO.	WELD ON BRACKET QTY./UNIT NO.	REMARKS
13	HRH-SZ1	120	185 (COMPRESSION)	4400	4215	2	4	
14	HRH-SY2	50	110 (EXPANSION)	3189	3079	2	4	
15	HRH-SY1	50	107 (EXPANSION)	3189	3079	2	4	
16	LPBP-SX1	75	80 (COMPRESSION)	1730	1650	2	4	
17	CRH-SX3	50	72 (EXPANSION)	1322	1250	2	4	

PREPARED PRADEEP	APPROVED SESHAGIRI	DATE 14.07.16	DRG. No. 4-00-301-40991 SHEET 03 OF 03	REV. 00
-------------------------	---------------------------	----------------------	--	----------------