



Form No:
TD-106-1 REV.1

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VERTICAL INSERT
(NPT)

1.0 SCOPE

THIS STANDARD COVERS REQUIREMENTS OF VERTICAL INSERT FOR TURBINE AND COMPRESSORS PROJECTS. THESE ARE WELDED ON TO THE PIPE LINES FOR PROVIDING TAPPING CONNECTIONS FOR INSTRUMENTS, DRAINS AND VENTS.

2.0 MATERIAL SPECIFICATION

THE RAW MATERIAL SPECIFICATION SHALL BE AS PER ENQUIRY WHICH CAN BE ANY OF THE FOLLOWING

- 2.1 ASTM A 105 (C.S) (CARBON SHALL BE RESTRICTED TO 0.25% MAX.)
- 2.2 ASTM A 182 F11 (A.S) & F22 (AS)
- 2.3 ASTM A 182 F321 (S.S)

3.0 SIZES AND DIMENSIONS

SHALL BE AS INDICATED IN THE DRAWING

4.0 PROCESS

THESE ITEMS SHALL BE FORGED TO SHAPE MACHINING FROM ROUNDS IS NOT PERMITTED.

5.0 TESTS AND HEAT TREATMENT

TESTS AND HEAT TREATMENT SHALL BE AS PER RELAVANT MATL STD. ACCEPTANCE TO ANY DEVIATIONS/OPTIONS SHALL BE OBTAINED FROM PURCHASER

6.0 THREADING

THREADING SHALL BE AS PER ANSI STANDARED (NPT) TAPER PIPE THERADING CONFORMING TO ANSI B 2.1 - 1966.

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STANDARDS

Revision:
01
Date:
02-09-1992

STD COPIED ON CAD

Issued:
EDC (INDUSTRIAL TURBINES & COMPRESSORS)
HYDERABAD
Prepared: *SBB*
SBB
Approved: *RBC*
RBC
Date:
02-09-1992



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7.0 INSPECTION

THESE ITEMS SHALL BE INSPECTED FOR EXTERNAL DIMENSIONS AND MANUFACTURING DEFECTS BY M/° LLOYDS / M/° IBR

8.0 TEST CERTIFICATES

TEST CERTIFICATES SHALL BE SUPPLIED ALONG WITH SUPPLIES TRIPPLICATE WITH ONE REPRODUCIBLE COPY WITH M/° LLOYDS / M/° IBR ATTESTATIONS

9.0 DESIGNATION

9.1 NAME OF THE PART SHALL BE AS BELOW
C.S. VERTICAL INSERT 1 1/2" NPT 3000.

9.2 MATERIAL SPECIFICATION SHALL BE TC 5 6211 VAR No.05.

10.0 MARKING

EACH ITEM SHALL BE MARKED (BY PUNCH MARKING) GIVING THE FOLLOWING DETAILS

10.1 MANUFACTURERS TRADE MARK

10.2 TITLE AS "VERTICAL INSERT"

10.3 SIZE X X

10.4 RATING XXXX

10.5 TC 5 6211

10.6 VAR NO. XXX

10.7 MATERIAL SPECIFICATION

10.8 COMPONENT CODE

10.9 INSPECTION AUTHORITY MARKING

11.0 PROTECTION

ITEMS SHALL BE PROTECTED FROM RUST PREFERABLY TREATED WITH PLASTIC COATING PEEL-OFF TYPE



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12.0 PACKING AND DISPATCH

ALL ITEM SHALL BE PACKED PROPERLY TO PROTECT FROM MECHANICAL DAMAGE DURING TRANSPORT AND STORAGE

13.0 REFERENCE DRAWINGS

13.1 4C-47-9124

13.2 4C-13-2624

13.3 ITN 82081/1

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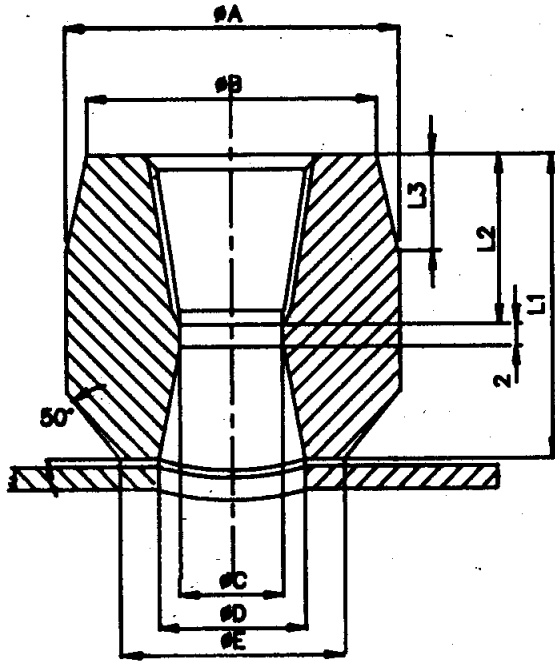
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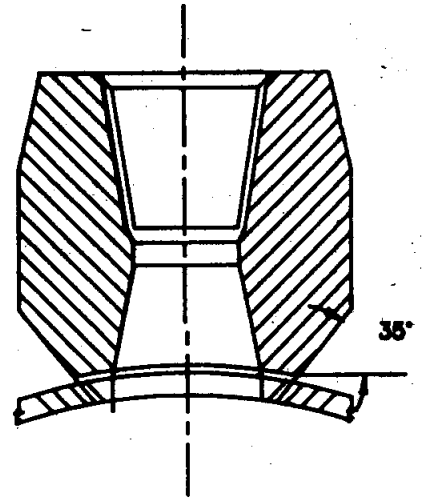
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6.3



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ALL DIMENSIONS IN mm
WT IN KGS.

PRODUCT STANDARD
INDUSTRIAL TURBINES & COMPRESSORS

TC 5 6211

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VAR NO	SIZE NPT	RATING	A	B	C	D	E	L1	L2	L3	MATL SPN	WT/ Pc	COMPONENT CODE
01	1/2"	3000	35	29	15.8	23.8	27.8	26	20	10	A105	0.11	TC 9756 211 016
02	3/4"	3000	45	35	20.9	30.2	34.2	27	20	10	A105	0.3	TC 9756 211 024
03	1"	3000	54	45	26.6	36.5	40.5	34	25	12	A105	0.4	TC 9756 211 032
04	1 1/4"	3000	65	56	34.0	45.2	49.2	35	26	13	A105	0.43	TC 9756 211 040
05	1 1/2"	3000	73	64	40.9	50.8	54.8	35	26	13	A105	0.45	TC 9756 211 059
06	1/2"	6000	45	39	11.8	19.0	23.0	32	20	10	A105	0.12	TC 9756 211 067
07	3/4"	6000	51	45	15.6	25.2	29.0	37	20	10	A105	0.34	TC 9756 211 075
08	1"	6000	62	58	20.7	33.2	37.0	40	25	12	A105	0.45	TC 9756 211 083
09	1 1/4"	6000	73	68	30.0	41.6	45.6	42	26	13	A105	0.56	TC 9756 211 091
10	1 1/2"	6000	83	77	34.0	49.0	53.0	43	26	13	A105	0.89	TC 9756 211 105

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INDUSTRIAL TURBINES & COMPRESSORS

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ALL DIMENSIONS IN mm
WT IN KGS.

VAR NO	SIZE NPT	RATING	A	B	C	D	E	L1	L2	L3	MATL SPN	WT/ Pc	COMPONENT CODE
(11)	1/2"	3000	35	29	15.8	23.8	27.8	26	20	10	A182F11	0.11	TC 9756 211 113
(12)	3/4"	3000	45	35	20.9	30.2	34.2	27	20	10	A182F11	0.3	TC 9756 211 121
(13)	1"	3000	54	45	26.6	36.5	40.5	34	25	12	A182F11	0.4	TC 9756 211 130
(14)	1 1/4"	3000	65	56	34.0	45.2	49.2	35	26	13	A182F11	0.43	TC 9756 211 148
(15)	1 1/2"	3000	73	64	40.9	50.8	54.8	35	26	13	A182F11	0.45	TC 9756 211 156
(16)	1 1/2"	6000	45	39	11.8	19.0	23.0	32	20	10	A182F11	0.12	TC 9756 211 164
(17)	3/4"	6000	51	45	15.6	25.2	29.0	37	20	10	A182F11	0.34	TC 9756 211 172
(18)	1"	6000	62	58	20.7	33.2	37.0	40	25	12	A182F11	0.45	TC 9756 211 180
(19)	1 1/4"	6000	73	68	30.0	41.6	45.6	42	26	13	A182F11	0.56	TC 9756 211 199
(20)	1 1/2"	6000	83	77	34.0	49.0	53.8	43	26	13	A182F11	0.89	TC 9756 211 202

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ALL DIMENSIONS IN mm
 WT IN KGS.

VAR NO	SIZE NPT	RATING	A	B	C	D	E	L1	L2	L3	MATL SPN	WT/Pc	COMPONENT CODE
21	1/2"	3000	35	29	15.8	23.8	27.8	26	20	10	F321	0.11	TC 9756 211 210
22	3/4"	3000	45	35	20.9	30.2	34.2	27	20	10	F321	0.3	TC 9756 211 229
23	1"	3000	54	45	26.6	36.5	40.5	34	25	12	F321	0.4	TC 9756 211 237
24	1 1/4"	3000	65	56	34.0	45.2	49.2	35	26	13	F321	0.43	TC 9756 211 245
25	1 1/2"	3000	73	64	40.9	50.8	54.8	35	26	13	F321	0.45	TC 9756 211 253
26	1/2"	6000	45	39	11.8	19.0	23.0	32	20	10	F321	0.12	TC 9756 211 261
27	3/4"	6000	51	45	15.6	25.2	29.0	37	20	10	F321	0.34	TC 9756 211 270
28	1"	6000	62	58	20.7	33.2	37.0	40	25	12	F321	0.45	TC 9756 211 288
29	1 1/4"	6000	73	68	30.0	41.6	45.6	42	26	13	F321	0.56	TC 9756 211 296
30	1 1/2"	6000	83	77	34.0	49.0	53.0	43	26	13	F321	0.89	TC 9756 211 300

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