

F

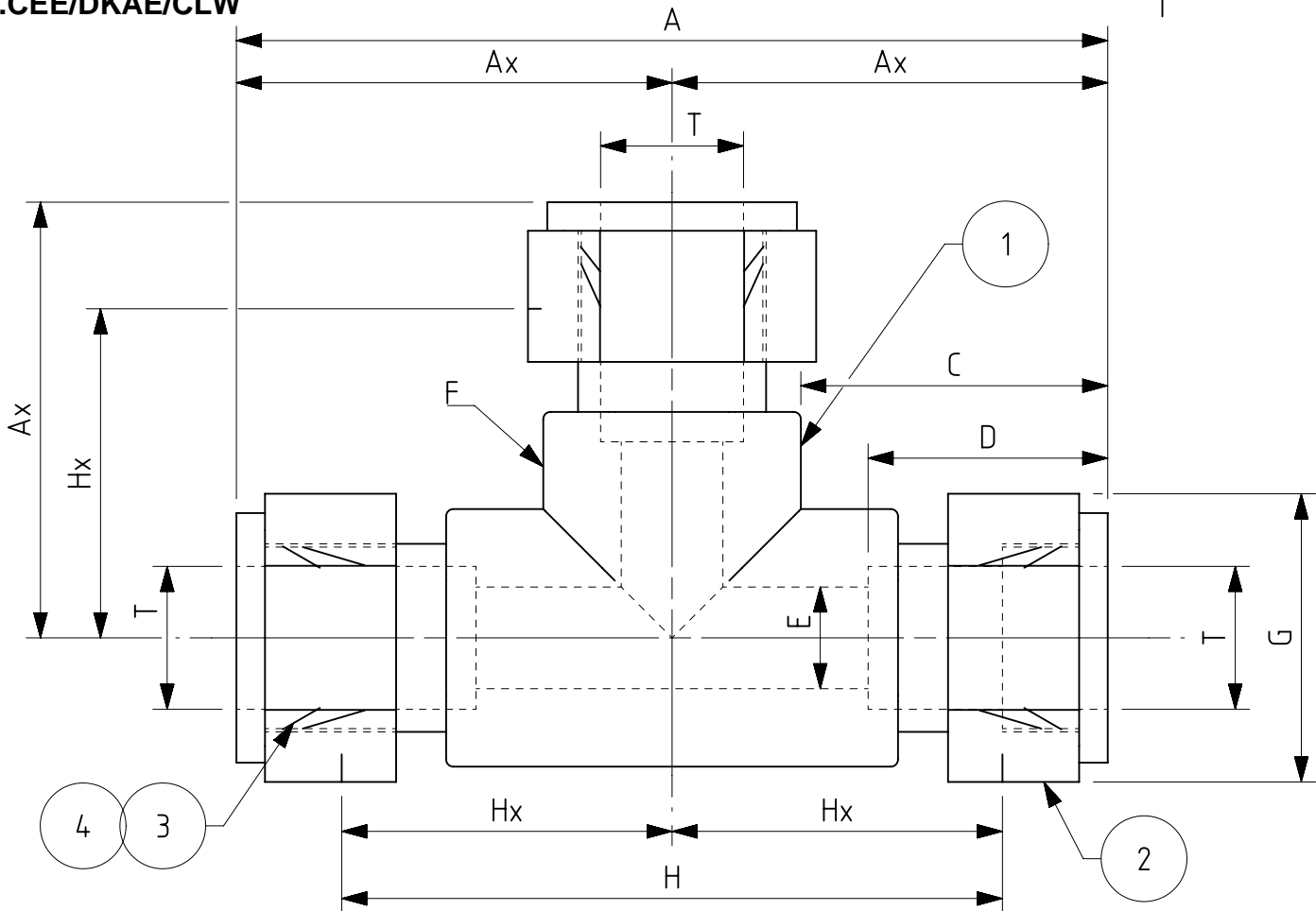
E

D

C

B

A


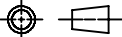







- NOTES:
1. REMOVE ALL BURRS & SHARP EDGES.
 2. BODY & BACKNUT SHOULD BE ZINC PLATED (10U)/PASSIVATED.
 3. ALL DIMENSIONS ARE IN mm EXCEPT OTHERWISE STATED.
 4. GENERAL TOLERANCES ON DIMENSIONS:
(a) BELOW 1":
+0.02
-0
(b) ABOVE 1":
+0.04
-0
EXCEPT 'T'
 5. DIMENSIONS A, C, D, Ax ARE TYPICAL FINGER TIGHT.
 6. ISO 711 & ISO 228/1 FOR TAPER & PARALLEL THREADS RESPECTIVELY.
 7. UNION TEES ARE TO BE MACHINED FROM FORGED BLANKS AND NOT TO BE CAST.
 8. THIS FITTING IS TO BE SWAGED ON S.S TUBES (Gr.304) OF HARDNESS 90 HRS MAX.
 9. ALL THE PARTS OF THE FITTING SHOULD BE CONCENTRIC AND BE CAPABLE OF SELF-ALIGNMENT WHEN ASSEMBLED WITH PROPER SIZE TUBING.
 - 10.NUTS & FERRULES OF A PARTICULAR SIZE SHALL BE INTERCHANGABLE FOR EACH TYPE.

ORIGINAL
SUPPLIER: SWAGELOK / USA
USED FOR LOCO WAG-9, WAP-7 & WAP-5

SL. No.	T TUBE OD	A	Ax	C	D	E MINIMUM OPENING	F WRENCH PAD	G HEX. FLAT	H (BODY)	Hx
1	10 mm	2.40"	1.20"	0.76"	0.66"	0.28"	5/8"	11/16"	1.82"	0.91"
2	1"	3.86"	1.93"	1.04"	1.23"	0.88"	1-3/8"	1-1/2"	2.90"	1.45"
3	1-1/2"	6.14"	3.07"	1.78"	1.97"	1.34"	2"	2-1/4"	4.00"	2.00"
4	1/2"		34.9			10.3 mm	22 mm	22 mm	49.2 mm	24.6 mm
5	1" x 1/2" x 1"	3.86"	1.93"	1.04"	1.23"	0.83"	1-3/8"	1-1/2"	2.9"	1.45"

4			BACK FERRULE	3	S,ST'L	GR.316	-
3			FRONT FERRULE	3	S,ST'L	GR.316	-
2			BACK NUT	3	CARBON ST	ASTM A108	-
1			BODY	1	CARBON ST	ASTM A108	-
निर्देश संख्या	लागत एवं वितरण संख्या	अंग आरेखण संख्या	वर्णन	मात्रा	पदार्थ	विशिष्टि	प्रति भार कि. ग्रा.
REF. NO.	C&D NO.	PART DRG. NO.	DESCRIPTION	QTY.	MATL	SPECN	WT. EACH IN K.G.

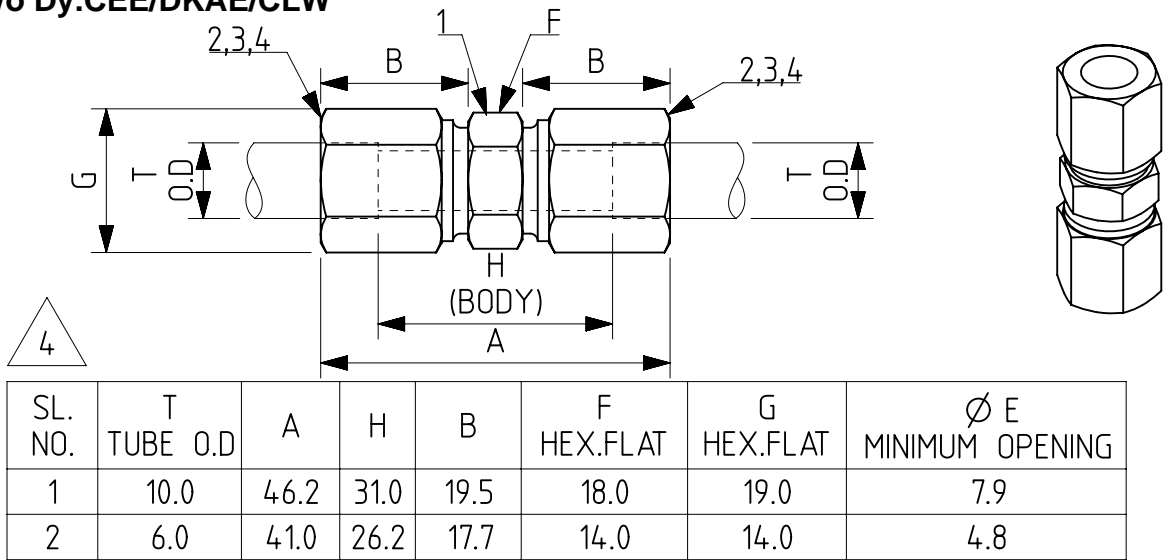
अधिकृत DGN		<div></div>		चितारंजन रेलइंजन कारखाना CHITTARANJAN LOCOMOTIVE WORKS, INDIA		
जॉचा व.अ.अ. CHD SSE		<div><div>SUBHANK AR KUMBHAKAR</div><div><div><div><div></div></div><div><div></div></div><div><div></div></div></div><div><div>Digitally signed by SUBHANK KUMBHAKAR Date: 2020.11.23 12:35:51 +05'30'</div></div></div></div>		पदार्थ MAIL		प्रति भार कि. ग्रा. WT. EACH IN KG
समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE		<div><div>Pradeep Khatana</div><div><div><div><div></div></div><div><div></div></div><div><div></div></div></div><div><div>Digitally signed by Pradeep Khatana Date: 2020.11.24 17:52:42 +05'30'</div></div></div></div>		विशिष्टि SPECN		वर्णन UNION TEE
अनुमोदित च.यु.वि.अ. APPROVED DYCEE		<div><div>ARUP KUMAR MITRA</div><div><div><div><div></div></div><div><div></div></div><div><div></div></div></div><div><div>Digitally signed by ARUP KUMAR MITRA Date: 2020.11.23 15:25:46 +05'30'</div></div></div></div>		वर्णन DESCRIPTION		
दिनांक DATE		23-09-20		वर्णन DESCRIPTION		
रैखिक अनुपात SCALE		2:1		वर्णन DESCRIPTION		
संदर्भ / REF. 182-00531 ALT- 0		आरेखण संख्या DRAWING NO.		1209-18.306-029		
<div></div>		परिवर्तन संख्या ALTERATION NO.		7	पूर्ण SHEET	
				1 OF 1	A3	

धातु-वेल्डन चिन्ह भा. मा. : 813 / अ. मा. सं.:2553 WELDING SYMBOLS TO IS:813 / ISO:2553 सतह - रुक्षता का मान भा. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302	अनिर्दिष्ट सद्य - सीमा भा. मा. : 2102 / अ. मा. सं. : 2768 UNSPECIFIED TOLERANCE TO IS : 2102 / ISO : 2768											TOL. CLS.	
	पदांक GRADE NO.	सं1 N1	सं2 N2	सं3 N3	सं4 N4	सं5 N5	सं6 N6	सं7 N7	सं8 N8	सं9 N9	सं10 N10	सं11 N11	सं12 N12
	Rz	0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.8	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250
	Ra μm	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
	चिन्ह SYMBOL												

7		REDRAWN IN NX WITH 3RD ANGLE PROJECTION	31-07-20
6	DY. CEE PROJ./CON	SL. NO. 4 AND 5 ADDED FOR CCB BRAKE SYSTEM.	17-01-14
5	DY.CEE P./CON	UNIT MM ADDED	15-03-13
4	DY.CEE/D-I	SL. NO. 1 TUBE O/D 10 WAS 3/8"	14-02-12
3	AME/D&D	WAP-5 CLASS OF LOCO ADDED.	15-01-03
2	AME/D&D	NOTE 3 TO 10 ADDED.	07-09-01
1	AME/D&D	PASSIVATED ADDED.	19-08-98
परिवर्तन संख्या	प्राधिकार	वर्णन DESCRIPTION	दिनांकित आद्यक्षर DATED INITIAL
ALT. NO.	AUTHY		

Technical drawing of a 90° elbow fitting. The drawing includes a side view with dimensions and a top view. Key dimensions and labels are as follows:

- A**: (TUBE O.D.) - Outer diameter of the tube.
- B**: H (BODY) - Height of the body.
- C**: - Vertical dimension from the base to the center of the body.
- D**: - Vertical dimension from the base to the top of the body.
- E**: ØE - Diameter of the base.
- F**: WRENCH PAD - Feature on the top of the body.
- G**: - Horizontal dimension from the centerline to the edge of the body.
- H**: - Horizontal dimension from the centerline to the edge of the body.
- I**: - Horizontal dimension from the centerline to the edge of the body.
- J**: - Horizontal dimension from the centerline to the edge of the body.
- K**: - Horizontal dimension from the centerline to the edge of the body.
- L**: - Horizontal dimension from the centerline to the edge of the body.
- M**: - Horizontal dimension from the centerline to the edge of the body.
- N**: - Horizontal dimension from the centerline to the edge of the body.
- O**: - Horizontal dimension from the centerline to the edge of the body.
- P**: MALE TAPER ISO 7/1 - Feature on the base.
- Q**: 2x45° CHAMFER - Feature on the base.
- R**: - Feature on the base.
- S**: - Feature on the base.
- T**: - Feature on the base.
- U**: - Feature on the base.
- V**: - Feature on the base.
- W**: - Feature on the base.
- X**: - Feature on the base.
- Y**: - Feature on the base.
- Z**: - Feature on the base.



NOTES:

1. REMOVE ALL BURRS & SHARP EDGES.

2. BODY & BACKNUT ARE TO BE ZINC PLATED (10 μ)/PASSIVATED.

3.

4. ALL DIMENSIONS ARE IN mm EXCEPT OTHERWISE STATED.

5. ISO 7/1 & ISO 228/1 FOR TAPER & PARALLEL THREADS RESPECTIVELY.

6. GENERAL TOLERANCE ON DIMENSIONS:

(a) BELOW 25 mm $\begin{matrix} +0.5 \\ -0 \end{matrix}$, b) ABOVE 25 mm $\begin{matrix} +1.0 \\ -0 \end{matrix}$ EXCEPT 'T'

7. DIMENSIONS A, B ARE TYPICAL FINGER TIGHT.






8. THIS FITTING IS TO BE SWAGED ON S.S TUBES (GR.304) OF HARDNESS 90 HRB MAX.


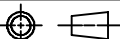
9. ALL THE PARTS OF THE FITTING SHALL BE CONCENTRIC AND BE CAPABLE OF SELF-ALIGNMENT WHEN ASSEMBLED WITH PROPER SIZE TUBING.

10. NUTS & FERRULES OF PARTICULAR SIZE SHALL BE INTERCHANGEABLE FOR EACH TYPE.

USED FOR LOCO- WAG9, WAP5

4			FERRULE	2	S.S.	GR.316	
3			FERRULE	2	S.S.	GR.316	
2			BACK NUT	2	CARBON STEEL	ASTM A108	
1			BODY	1	CARBON STEEL	ASTM A108	
निर्देश संख्या	लागत एवं वितरण संख्या	अंग आरेखण संख्या	वर्णन	मात्रा	पदार्थ	विशिष्टि	प्रति भार कि. ग्रा.
REF. NO.	C&D NO.	PART DRG. NO.	DESCRIPTION	QTY.	MATL	SPECN	WT. EACH IN K.G.

5		REDRAWN IN NX WITH 3RD ANGLE PROJECTION.	1/10/2010									
4	AME/D&D	VIEW MODIFIED. PREVIOUS TABLE, NOTE 3 DELETED. NEW TABLE NOTES 4 TO 10 ADDED.	20-08-01									
3	AME/D&D	NOTE 3 AND CLASS OF LOCO WAP5 ADDED.	19-04-99									
2	AME/D&D	SL. NO. 2 ADDED.	12-04-99									
1	AME/D&D	PASSIVATED ADDED.	19-08-98									
परिवर्तन संख्या ALT.NO.	प्राधिकार AUTHY	वर्णन DESCRIPTION	दिनांकित बाधक DATED INITIAL									
सतह - रक्षता का मान या. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302		अनिर्दिष्ट सद्य - सीमा या. मा. : 2102 / अ. मा. सं. : 2788 UNSPECIFIED TOLERANCE TO IS : 2102 / ISO : 2768 धातु-वेल्डन चिन्ह या. मा. : 813 / अ. मा. सं. : 2553 WELDING SYMBOLS TO IS:813 / ISO:2553	TOL. C.L.S.									
पदांक GRADE NO.	सं1 N1	सं2 N2	सं3 N3	सं4 N4	सं5 N5	सं6 N6	सं7 N7	सं8 N8	सं9 N9	सं10 N10	सं11 N11	सं12 N12
Rz	0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.8	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250
Ra μm	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
चिन्ह SYMBOL												

अधिकृतित DGN						चितरंजन रेलइंजन कारखाना CHITTARANJAN LOCOMOTIVE WORKS, INDIA	
जॉचा व.अ.अ. CHD SSE		ALOKE KUMAR CHAKRA BORTY Digitally signed by ALOKE KUMAR CHAKRA BORTY Date: 2021.03.31 16:12:51 +05'30'		पदार्थ MATL		प्रति भार कि. ग्रा. WT. EACH IN KG	
समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE		Pradeep Khatana Digitally signed by Pradeep Khatana Date: 2021.07.15 15:54:47 +05'30'		विशिष्ट SPECN			
अनुमोदित उ.मु.वि.अ. APPROVED DYCEE		SYAMA PRASAD PATRA Digitally signed by SYAMA PRASAD PATRA Date: 2021.09.01 17:03:21 +05'30'		वर्णन STRAIGHT COUPLING TYPE P-GV			
दिनांक DATE		23-09-20		DESCRIPTION			
रेखिक अनुपात SCALE		1:1		आरेखण संख्या DRAWING NO.		1209-18.406-012	
संदर्भ / REF. 182-00462-003ALT-						परिवर्तन संख्या ALTERATION NO.	
				5		पुर्ण SHEET 1 OF 1	
						A4	