



NOTES:

1. MATERIAL: SEAMLESS TUBE OR CRS 1010
2. FINISHED PART TO BE FREE OF SHARP EDGES AND BURRS.  
INSIDE OF TUBE TO BE FREE OF DIRT AND FOREIGN MATTER
3. ASSEMBLE HYDRAULIC FITTINGS PRIOR TO FLARING.  
FLARE ONE END ONLY.  
PART SHOWN IN PRE-FLARED STATE

REV	CHANGED FROM	BY	DATE	APRD
A	PRE-RELEASE	CPS	4/30/13	
B	RELEASE FOR PRODUCTION	CPS	5/10/13	

REPORT ERRORS & CHANGES  
REMOVE ALL BURRS AND SHARP EDGES  
DIMENSIONS ARE IN MILLIMETERS.  
UNSPECIFIED TOLERANCES:  
DECIMALS: FINISH: ANGLES:

X: ±1.0  
X: ±0.5  
XX: ±0.25

6.3  $\sqrt{\mu\text{m Ra}}$   $\leq \pm 0.5^\circ$

COPYRIGHT ©

NOT TO BE REPRODUCED OR USED TO MAKE  
OTHER DRAWINGS OR MACHINERY

DRAWN: CPS DATE: 4/30/13  
CHECKED: THIRD ANGLE PRI

**National Renewable Energy Laboratory**

TITLE: TUBE, GEARBOX DRAIN,  $\phi 1.50$

SIZE: **B** DWG. NO. 95448 REV: **B**

SCALE: 1:3 WEIGHT: 0.80 kgs SHEET 1 OF 1