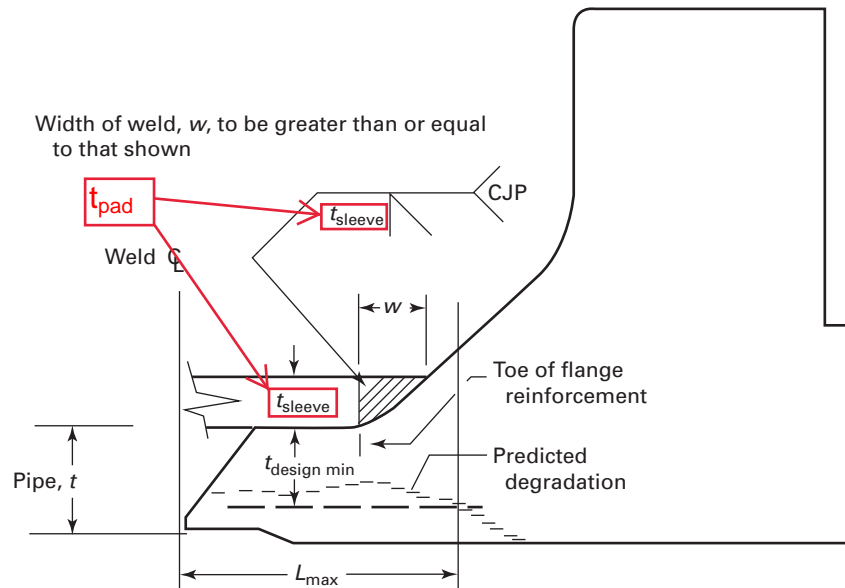


Figure 3
Reinforcing Pad Connection to Weld Neck Flange



L_{\max} = maximum length of corroded area with $t < t_{\text{design min}}$

= the greater of

(a) $\sqrt{R_o t}$

where

R_o = outside radius of the pipe

t = average pipe wall thickness adjacent to degraded area

or

(b) $Y - t_f - (X - A_h)/2$

where

A_h = diameter at beginning of chamfer

t_f = minimum thickness of flange

X = diameter of hub

Y = welding neck length through hub

all as defined in ASME B16.5

(c) Final configuration of the structural pad including attachment welds shall permit the examinations and evaluations required herein, including any required preservice or inservice examinations of encompassed or adjacent welds.

(d) Except for the tapered edges, the structural pad plate and attachment welds shall have a uniform thickness.

(e) Where structural pads are applied on the outside of piping to mitigate externally corroded areas with potential for bulging, the corrosion cavity shall be filled to the

original contour of the pipe with hardenable fill to minimize the gap beneath the reinforcing pad. [See Figure 1 sketch (b).]

3.5 PREQUALIFIED DESIGN

Application of structural pads on the outside surface of straight pipe, portions of tees not less than $2.5\sqrt{Rt_{\text{nom}}}$ from any branch connection, standard elbows, weld neck flanges, and associated welds for the mitigation of

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(e) All reinforcing pads, regardless of when installed, shall be removed no later than the end of the next refueling outage.

Figure 3 Reinforcing Pad Connection to Weld Neck Flange

