Slip on Welding Flange (SOWF)

This is a flange designed to be slid over a pipe with a tight fit suitable for welding. These are generally welded at the front; a seal weld to prevent material getting between the flange and pipe and to give us some material to put a radius on. Also at the back to provide the joint strength.

These may or may not have a raised steel face on them – more usually they will. This is fine for PTFE, we just flare out to the raised face diameter, but for the vast majority of PFA mouldings we have the raised face machined off.

Used on: Welded spools, fabricated fittings, Van Stone spools (modified see below).

Lapped Flange

This is designed to be a rotating flange, with a slightly larger bore to be a loose fit over the pipe. It also has a flat face as it is designed to sit behind a stub end. There is a radius or chamfer between the bore and the face to allow the flange to come hard up behind the stub end.

As these are difficult to purchase CRP take an SOWF and bore out the centre and machine a chamfer on them, but do not machine off the raised face.

Not readily available – so created from SOWF

Used on: Van Stone spools, rotating flanges on welded spools and rotating flanges on fabricated fittings.

Weld neck Flange

These have a large hub on the back and a bore to match the piping diameter. These are designed for butt welding onto the pipe. We really try to avoid these because of the inevitable mismatch between the flange and pipe bore diameters creating a step in the bore and the weld bead needing careful removal internally.

Blank Flange

These are for sealing the ends of pipes, so have no hub and no hole. The do have a raised face, and bolt holes.

Used on: Blank flanges, some reducing/adaptor flanges, bored out with non-standard bore to create special fittings/spools
Companion Flange

The term companion flange refers to any flange that fits together in Companion with another flange. This doesn’t really help as it can be used for many flange designs, however it is more usually understood to mean a flange with a sealing surface on one side and drilled through bolt holes and a pipe thread entrance on the other. At CRP we sell companion flanges for use on field flare spools supplied with tight fit liners. These have special machining detail and are manufactured from weld neck flanges or plate.

Used on: Supplied loose for use for field flaring.

Hubs on Flanges

SOWF and Lapped flanges have a substantial hub on the rear of the flange. These are not essential for our piping system, so these are machined off if necessary.