Prime

Appearance defects that are prone to occur in the stamping process

1. Blanking and punching (trimming) Defects: excessive burrs, deformation, surface scratches, missed punching, etc.

2. Drawing
Defects: tearing, wrinkling, surface scratches, wavy lines, bulges, pits,
pockmarks, etc.

3. Flanging Defects: Flanging is not perpendicular, folding height is inconsistent, folding is rough, etc.

Reference website：https://primefabworks.com/

Prime

Common appearance defects and their treatment

Stamped Parts:

1. Rust, Mixed Parts, Burrs
2. Wrinkling, Overlapping Material
3. Deformation (Protrusions, Depressions, Hole Deformation, Shape Mismatch), Brushing (Drawing Marks)
4. Indentations (Scratches, Bumps, Imprints, Ribs)
5. Missing Sections (Insufficient Holes, Holes Not Fully Punched, Unshaped, Missing Welded/Crimped Nuts, Uncut, Unchamfered, Undrilled Dots, Unpolished, Missing Paint Film)
6. Pitting, Calipings
7. Thinning (Necking, Thinning), Hidden Damage
8. Cracks (Cracks, Splits)
9. Missing Edges, Excess/Insufficient Material
10. Hole Misalignment, Welded/Crimped Nut Misalignment, Notch Misalignment, Crimping Misalignment
11. Unclear Engraving/Marking
12. Material Plating Peeling, Rough Surface

Welding/Crimping:

13. Burn-through
14. Weld bead
15. Arc crater
16. Surface porosity
17. Misalignment
18. Surface crack
19. Undercut
20. Unclean or poorly cleaned welded surface, arc damage to the weldment
21. Loosening of welded/crimp nuts/bolts
22. Deformation of welded/crimp nuts/bolts

Reference website：https://primefabworks.com/

Prime

1.）Rust, mixed parts, burrs -- 1

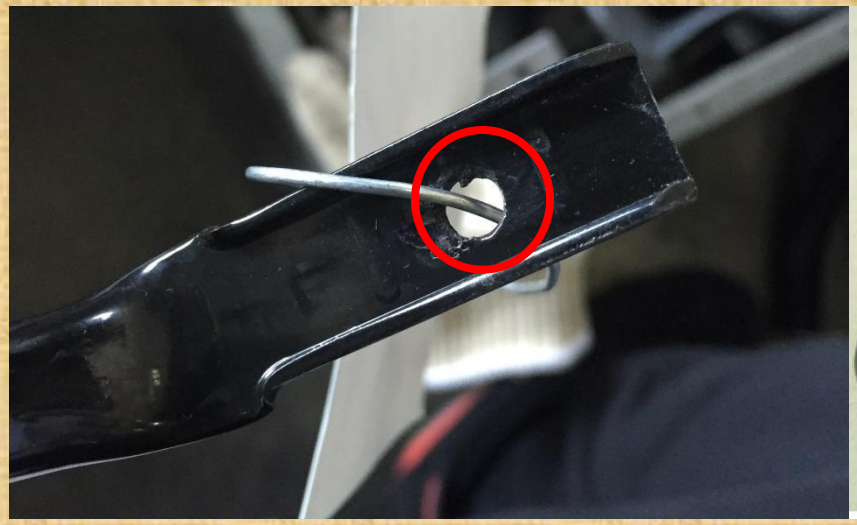
8RD 505 367/368Surface rust

19LG 128Surface rust

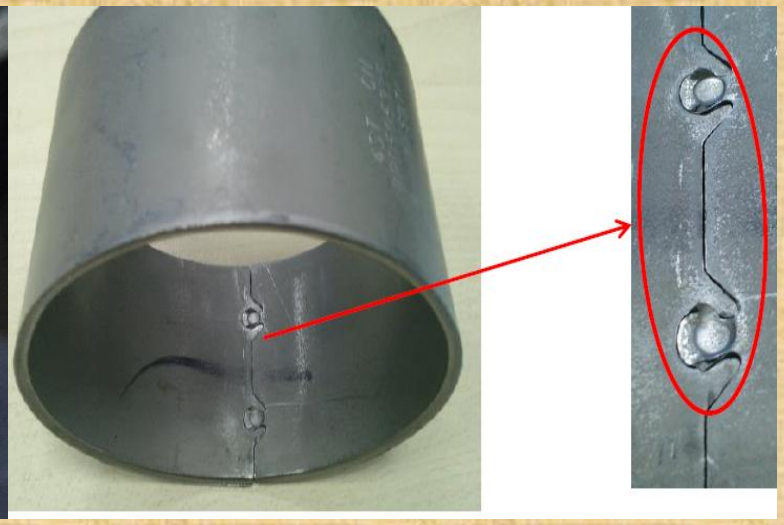
Reference website：https://primefabworks.com/

Prime

1.) Rust, mixed parts, burrs--2



29PG 161The edges of the hole have burrs



8RD 505 335
The inner wall has burrs

Reference website：https://primefabworks.com/

Prime

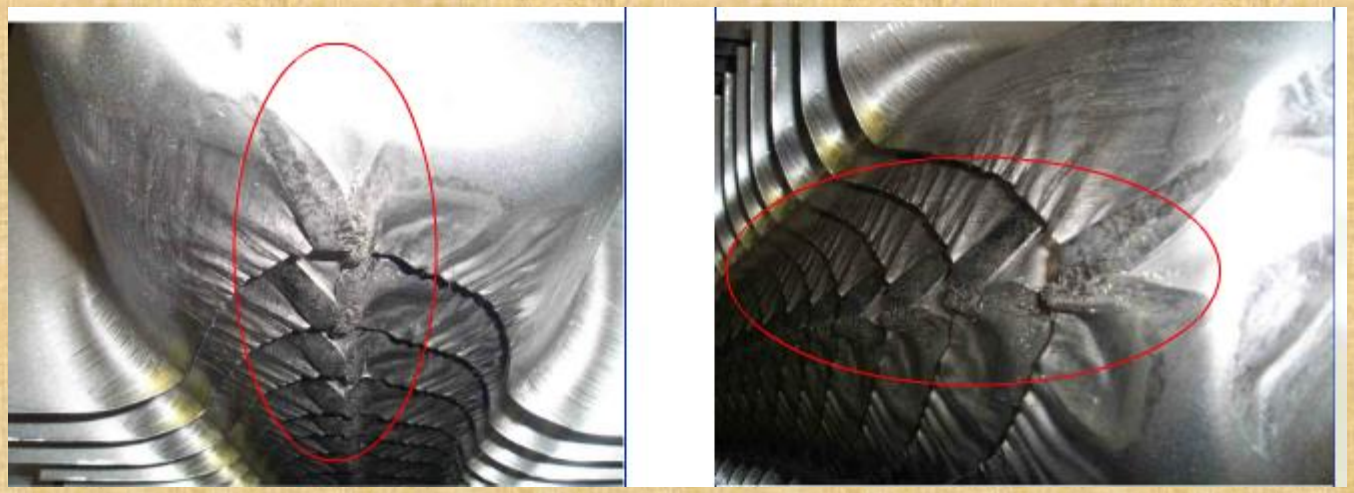
2.）Wrinkling, overlapping--1

Inspection methods: Primarily visual and tactile inspection.

Reference website：https://primefabworks.com/

Prime

2.）Wrinkling, overlapping--2



Stacked materials

Reference website：https://primefabworks.com/

Prime

3.) Deformation (protrusions, depressions, hole deformation, shape mismatch), roughening (drawing marks). --1

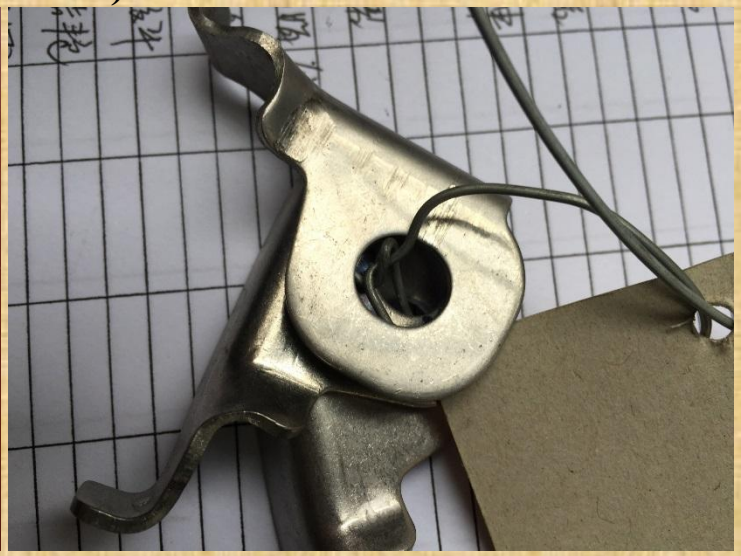
8RD 505 367 Repeat Positioning

44591 Elongated Hole Deformation

Reference website：https://primefabworks.com/

Prime

3.) Deformation (protrusions, depressions, wavy lines, hole deformation, shape mismatch), roughening (drawing marks) --2



44591 Edge Deformation

15192-BV80A-05 Edge Deformation

Inspection methods: Primarily visual and tactile inspection.

Reference website：https://primefabworks.com/

Prime

4.) Indentation (scratches, dents, embossing) -- 1

44591-1 scratch

YGJ6A34 H91
Surface Indentation

Inspection methods: Primarily visual and tactile.

Reference website：https://primefabworks.com/

Prime

4.) Indentation (scratches, dents, embossing)--2

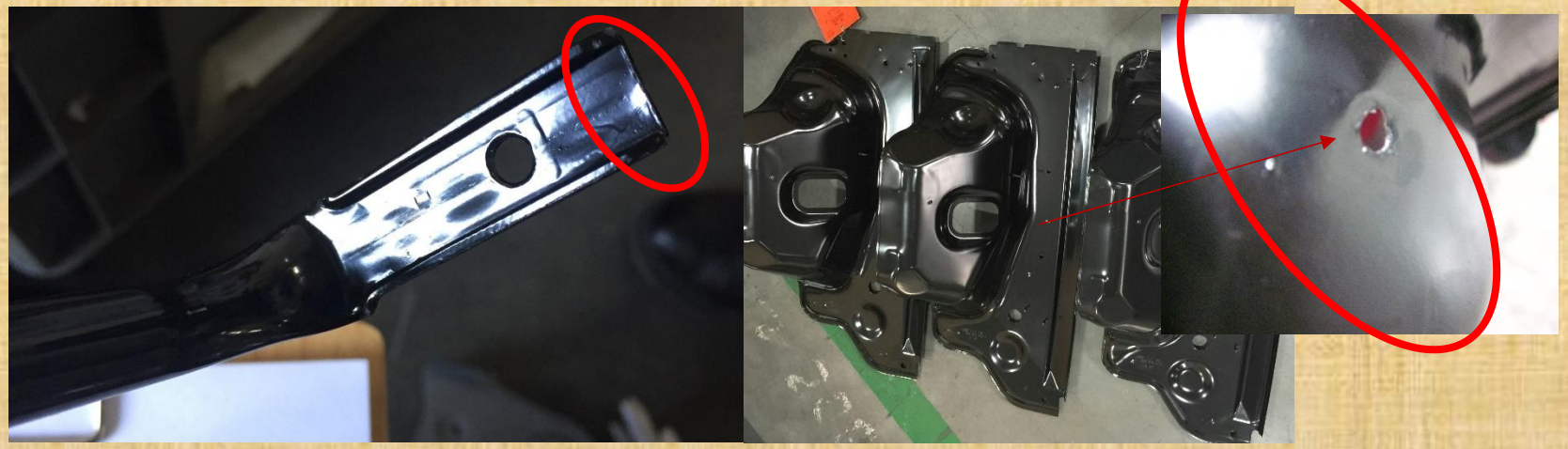
130GSurface indentation　57854-040/050Surface indentation

Inspection methods: Primarily visual and tactile inspection.

Reference website：https://primefabworks.com/

Prime

5.）Missing parts (incomplete holes, holes not fully punched, not shaped, missing welded/crimped nuts, not cut, not chamfered, not dotted, not sanded, missing paint film) --1



17BG 161Unchamfered

8R0 819 523HScrews that have not been soldered

Inspection methods: Basically, inspection is carried out by counting holes, visual inspection, and tactile inspection.

Reference website：https://primefabworks.com/

Prime

5.）Missing parts (incomplete holes, holes not fully punched, not shaped, missing weld/crimp nut, not cut, not chamfered, not dotted, not sanded, missing paint film) --2

8RD 505 359 Unreformed

8RD 505 367 Unreformed

Reference website：https://primefabworks.com/

Prime

5.）Missing parts (incomplete holes, holes not fully punched, not shaped, missing welded/crimped nuts, not cut, not chamfered, not dotted, not sanded, missing paint film) -- 3

8RD 505 330 Failed punch

44591-1 Side hole not fully punched

Reference website：https://primefabworks.com/

Prime

5.) Missing parts (incomplete holes, holes not fully punched, not shaped, missing welded/crimped nuts, not cut, not chamfered, not dotted, not sanded, missing paint film) --4

130G Failed Punching

16268-518YL-2 Missing Dot

Reference website：https://primefabworks.com/

Prime

5.）Missing parts (incomplete holes, holes not fully punched, not shaped, missing welded/crimped nuts, not cut, not chamfered, not dotted, not sanded, missing paint film) --4

72/73076 Missed Cut-off

8RD 505 322 Missing crimp nut

Reference website：https://primefabworks.com/

Prime

5.）Missing parts (incomplete holes, holes not fully punched, not shaped, missing welded/crimped nuts, not cut, not chamfered, not dotted, not sanded, missing paint film) --5

33823 Failed punching

8RD 505 380 missing cut

Reference website：https://primefabworks.com/

Prime

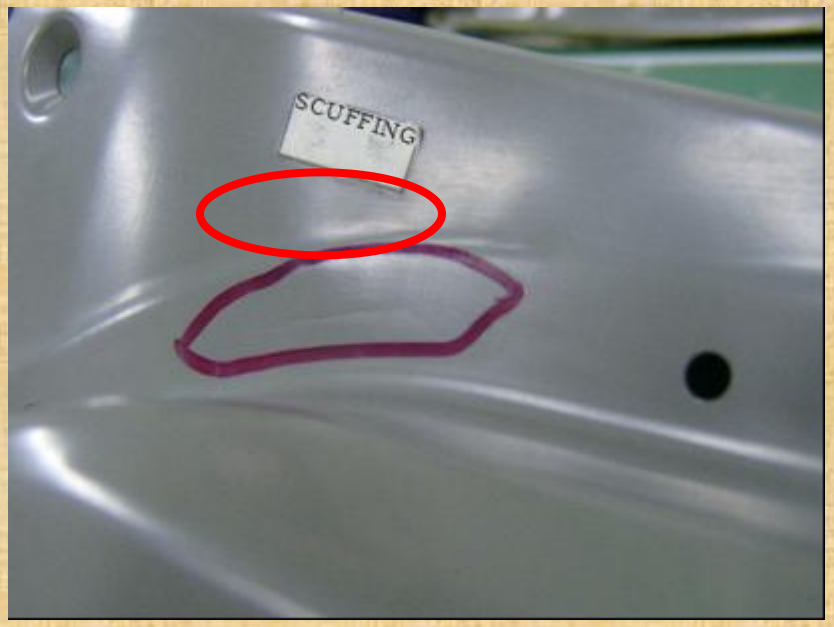
6.）pockmarks, dents

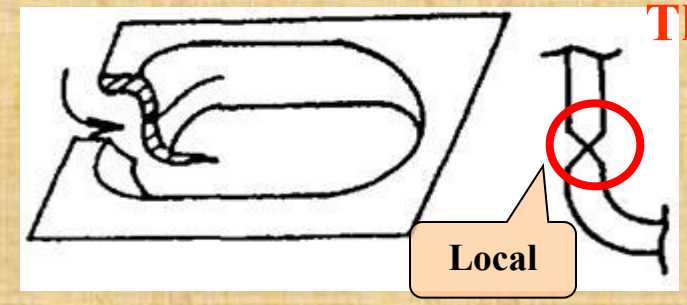
72076 Surface Pitting

Reference website：https://primefabworks.com/

Prime

7.） Thinning (neck shrinkage, thinning), hidden injuries -- 1





Inspection method: The inspection is mainly carried out by visual inspection and touch. The focus is on checking the corners and other areas where the material deformation is large. The parts should be turned over to check the reverse side.

Reference website：https://primefabworks.com/

Prime

7.） Thinning (neck shrinkage, thinning), hidden injuries -- 2

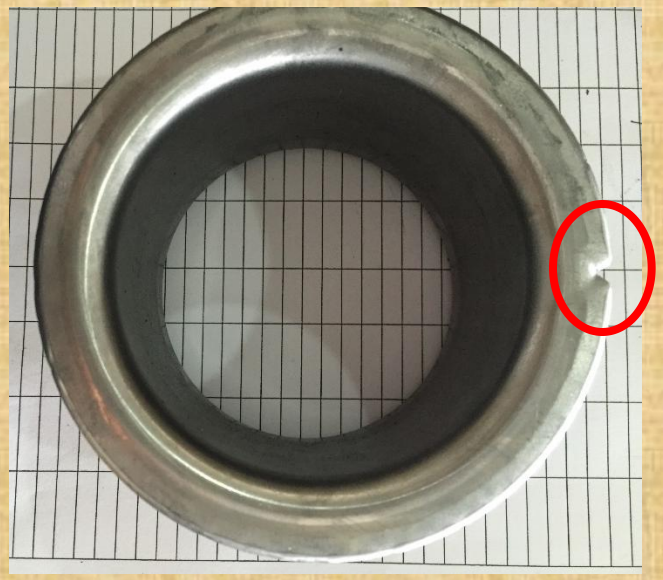
Inspection method: The inspection is mainly carried out by visual inspection and touch. The focus is on checking the corners and other areas where the material deformation is large. The parts should be turned over to check the reverse side.

Reference website：https://primefabworks.com/

Prime

8.) Tensile cracking (cracks, splitting)

840 surface cracks



8RD 505 336 Surface Cracks

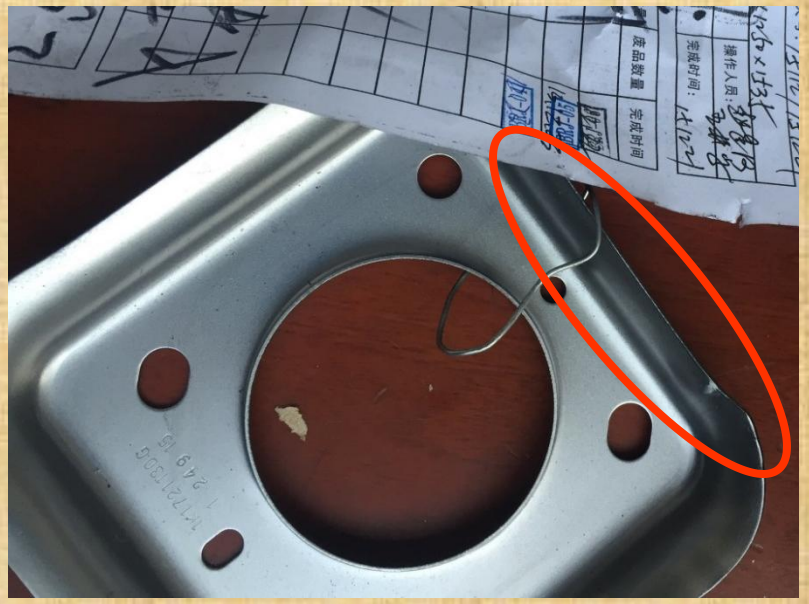
Inspection methods: Primarily visual and tactile inspection.

Reference website：https://primefabworks.com/

Prime

9.）Missing edges, extra/insufficient material

8RD 505 336 Edge missing



130G edge missing

Reference website：https://primefabworks.com/

Prime

10.）Hole misalignment, weld/press nut misalignment, notch misalignment, press-fit misalignment -- 1

33823 gap bias

8RD 505 368 punching deviation

Inspection methods: Primarily visual and tactile inspection.

Reference website：https://primefabworks.com/

Prime

10.）Hole misalignment, weld/press nut misalignment, notch misalignment, press-fit misalignment -- 2

8RD 505 321 Nut offset

Reference website：https://primefabworks.com/

Prime

11.) Insufficient depth and unclear bottom markings

NG

OK

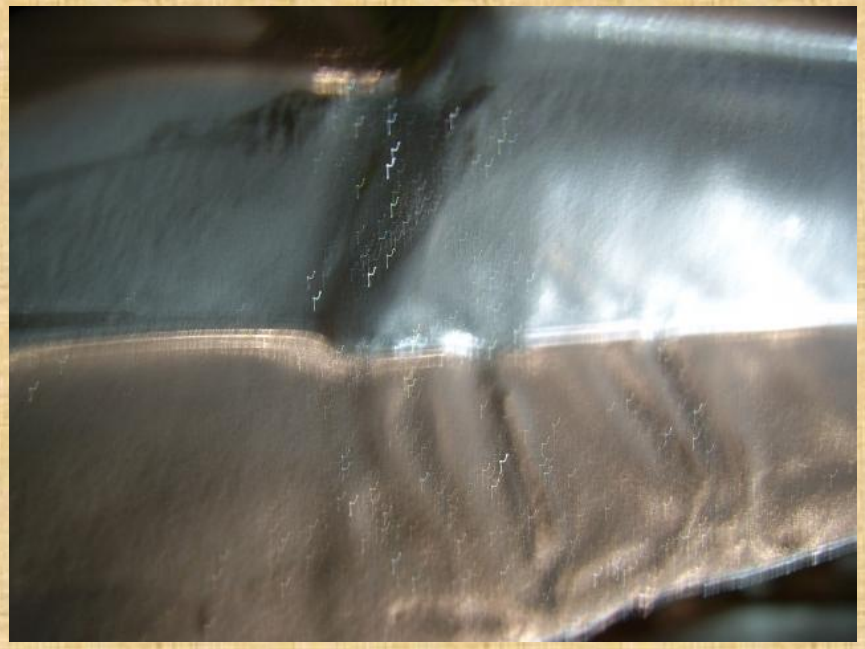
NG

Inspection methods: Primarily visual and tactile inspection.

Reference website：https://primefabworks.com/

Prime

12.）The coating on the material has peeled off, resulting in a rough surface.

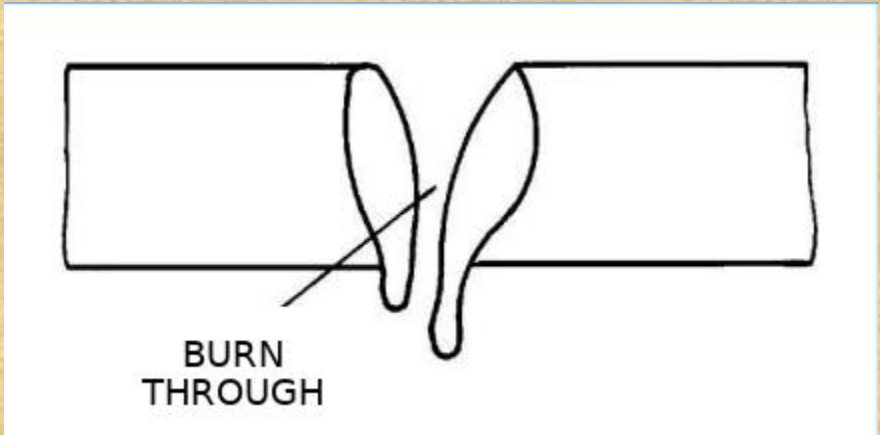


Inspection methods: Primarily visual and tactile inspection.

Reference website：https://primefabworks.com/

Prime

13.）Burn through



When the base metal is over-melted, the resulting penetration (perforation) is called burn-through.

Reference website：https://primefabworks.com/

Prime

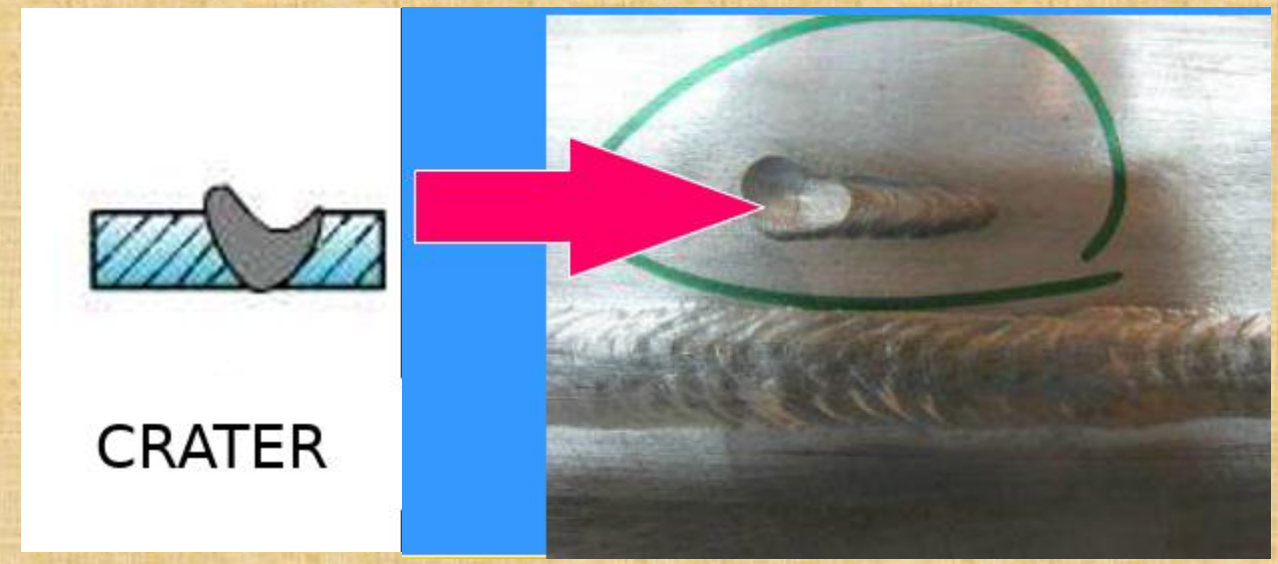
14.）Weld beads

Metal nodules are formed when molten metal flows onto the unmelted base material outside the weld.

Reference website：https://primefabworks.com/

Prime

15.）Crater

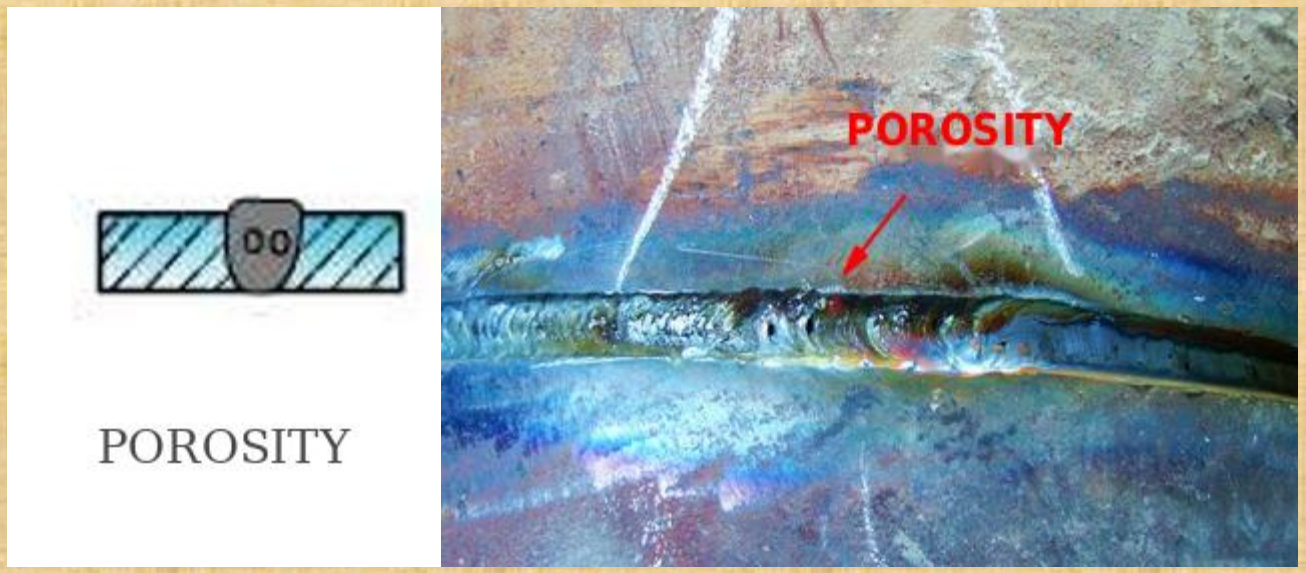


During arc welding, the pits at the end of the weld (where the arc is extinguished) or the joint of the welding rod (where the arc is started) are lower than the surface of the weld substrate. Porosity and microcracks are easily generated in these pits.

Reference website：https://primefabworks.com/

Prime

16.）Surface pores

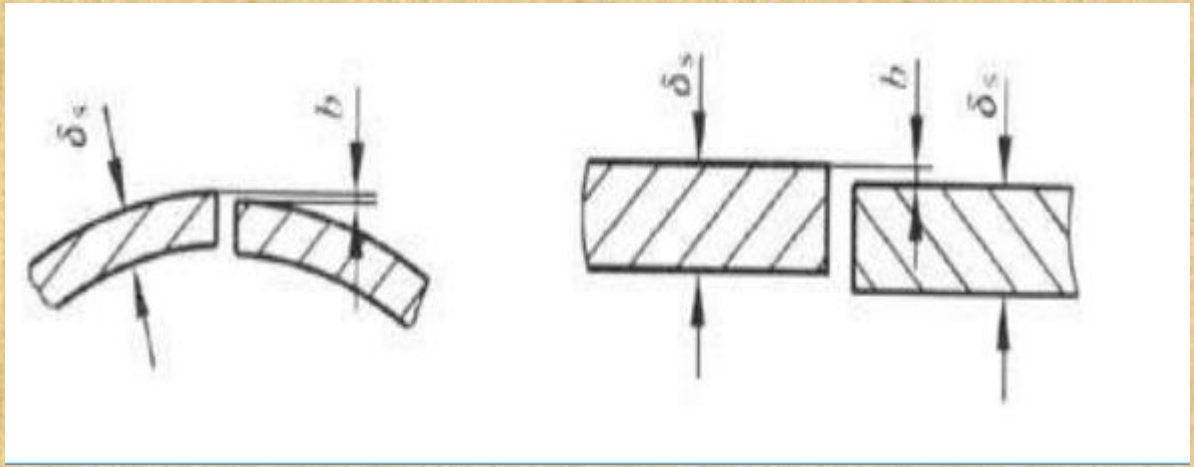


Holes formed on the surface of the weld during the welding process.

Reference website：https://primefabworks.com/

Prime

17.）Misaligned edges

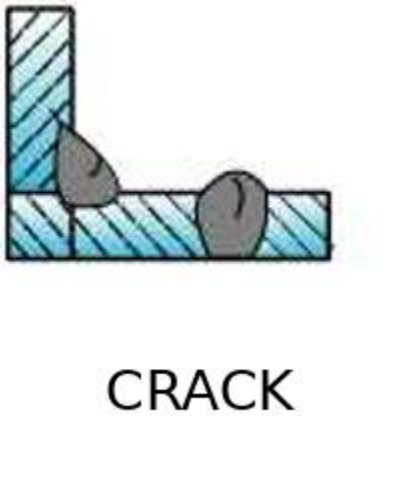


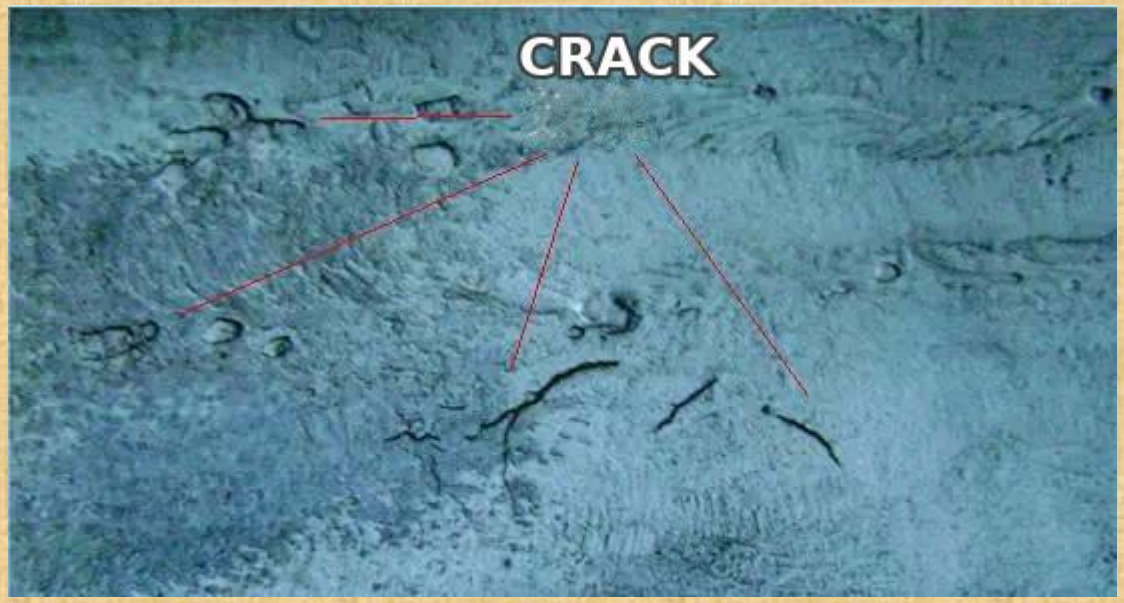
The welded parts are not aligned and there is a parallel deviation.

Reference website：https://primefabworks.com/

Prime

18.）Surface cracks



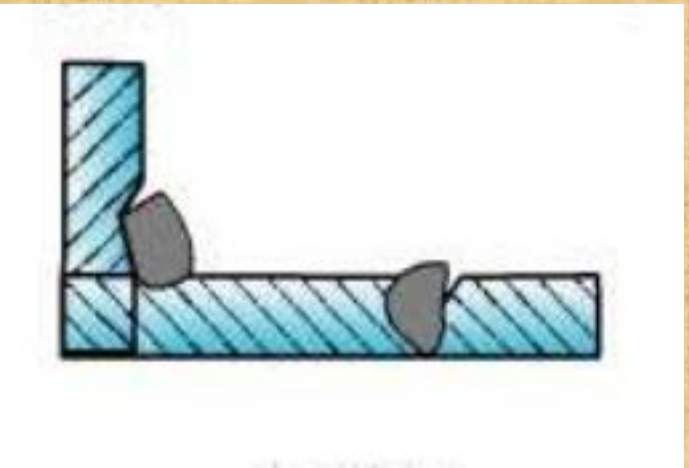


Surface cracking defects that occur in the weld, fusion line, and heat-affected zone of welded joints.

Reference website：https://primefabworks.com/

Prime

19.）Biting edge



Poor fusion between the weld and the base metal results in grooves with a depth greater than 0.5 mm.

Reference website：https://primefabworks.com/