WAB AND PROJECTS

- Weld-After Backfill (WAB)
- Coatings and Welding
Weld After Backfill-Sequence

- W-A-B has been used for the past 16 years on projects ranging from 36” pipe in San Diego to 120” pipe in Charlotte.

- Safety, Constructability, and Pipeline Integrity are principle reasons to use W-A-B.

- 1st project using W-A-B was the Lake Texoma 72” line built in 1989.

- More than 50 major projects have been constructed using W-A-B in the past 16 years.
Weld After Backfill

Typical Applications

• Weld After Backfill is a sequence used to improve overall installation rate for steel pipe.
• Pipe is laid and welded outside (if required).
• Joint coating is applied, usually a shrink sleeve.
• Pipe is backfilled.
• The inside weld is made later.

Shrink Sleeve

Evaluate under actual conditions
Weld After Backfill-Benefits

The W-A-B benefits the contractor, designer and owner

- Improved safety during construction (Owner)
  - Fewer obstructions inside pipe
  - Less risk from open trench outside pipe
- Improved Pipeline Integrity (Design)
  - Reduced thermal stress
  - Consistent backfill
- Improved Production (Contractor)
  - Installation will be independent of welding
  - No interruptions for expansion joints
  - Reduces shoring needs
Weld After Backfill-Key Items

- Heated backings expand, then contract as they cool. Backfill pressure keeps the sleeve in place. **Never weld a shrink-sleeved joint without backfill**
- Excessive gap in the pipe joint may allow heat flow-through which can affect the sleeve at the bell edge. **Respect minimum stabs depth and fit all joints to within the tolerances of 1/8”**.
- **Minimum stab depth should be 2” after any pipe alignment pull**
Weld After Backfill-Errors

Nonflammable materials must be specified and poor fit-up will cause big problems
Coatings and Welding

Pipe primers, coatings and overspray are not weldable
Weld After Backfill allows immediate backfilling of difficult areas
Weld After Backfill great benefits using proper methods