

1.1 Commodities for Productivity Tracking

Labor Productivity		
Multiple Technology Format		
Commodity	Qty	Comments
		Manhours include operators (not heavy-lift) and other craft (including journeymen, helper crafts, foremen and gen foremen) associated directly with receiving, unloading, storing, hauling, installation, bolt-up, alignment, and mechanical completion . Does not include pre-heat, stress relieving, scaffold or other indirect labor e.g. clean-up, firewatch, water, equip maintenance etc.
Concrete		
Slab on Grade	CY	includes formwork, rebar, embeds, placement and finishing; does not include excavation, backfill or mudslabs
Elevated Slab	CY	includes formwork, rebar, embeds, placement and finishing; form deck is in structural steel
Small Foundations (<= 20 CY) (incl all grade beams)	CY	includes formwork, rebar, embeds, placement and finishing; does not include excavation, backfill or mudslabs
Medium Foundations (21 CY - 100 CY)	CY	includes formwork, rebar, embeds, placement and finishing; does not include excavation, backfill or mudslabs
Large Foundations (101 CY - 499 CY)	CY	includes formwork, rebar, embeds, placement and finishing; does not include excavation, backfill or mudslabs
Mass Foundations (> 499 CY)	CY	includes formwork, rebar, embeds, placement and finishing; does not include excavation, backfill or mudslabs
Duct Bank Concrete	CY	includes formwork, rebar, embeds, placement and finishing; does not include conduit, grounding, excavation, backfill or mudslabs
Structural Steel		
Structural Steel	TN	Includes all rolled and built-up shapes from receipt through steel complete in place
Miscellaneous Steel	TN	Includes all rolled shapes from receipt through steel complete in place
Handrail	LF	Includes all handrail from receipt through installation
Grating	SF	Includes all grating from receipt through installation
Form Deck	SF	Includes all form-deck from receipt through installation
Ductwork		
Ductwork Fabrication and Erection	TN	Includes expansion joints, slide bearings and access doors; from receipt to finished installation including weld-out
SCR Reactor Box		
Reactor Box Erection	TN	Includes reactor box and jumbo support columns from the bottom of the outlet cones (incl ash hoppers) to the top of the inlet duct, with straightening layer (not including catalyst installation)

Piping Below Ground	LF	Quantity based on overall pipe length with no take-out for valves etc.
PVC	LF	Includes pipe runs, valves and fittings; receipt through installation, test & check-out
Ductile Iron	LF	Includes pipe runs, valves and fittings; receipt through installation, test & check-out
HDPE	LF	Includes pipe runs, valves and fittings; receipt through installation, test & check-out
Pipe Trench Excavation, Backfill and Compaction	CY	Includes excavation, backfill and compaction; quantity is the cubic yardage excavated from pipe trench with no reduction for pipe volume or use of special fill materials
Piping Above Ground (including open trench)	LF	Quantity based on overall pipe length with no take-out for valves etc.;
SS Small Bore (1/2" - 2-1/2")	LF	Includes hangers, pipe runs, valves and fittings; receipt through installation, test & check-out
SS Large Bore (>2-1/2")	LF	Includes hangers, pipe runs, valves and fittings; receipt through installation, test & check-out
Carbon Small Bore < Sch 80 (1/2" - 2-1/2") (incl alloys)	LF	Includes hangers, pipe runs, valves and fittings; receipt through installation, test & check-out
Carbon Large Bore < Sch 80 (>2-1/2") (incl alloys)	LF	Includes hangers, pipe runs, valves and fittings; receipt through installation, test & check-out
Carbon Small Bore >= Sch 80 (1/2" - 2-1/2") (incl alloys)	LF	Includes hangers, pipe runs, valves and fittings; receipt through installation, test & check-out
Carbon Large Bore >= Sch 80 (>2-1/2") (incl alloys)	LF	Includes hangers, pipe runs, valves and fittings; receipt through installation, test & check-out
HDPE Small Bore (1/2" - 1-1/2")	LF	Includes hangers, pipe runs, valves and fittings; receipt through installation, test & check-out
HDPE Large Bore (>1-1/2")	LF	Includes hangers, pipe runs, valves and fittings; receipt through installation, test & check-out
FRP Type I, Grade 2 (small bore 1/2" - 1-1/2")	LF	Includes hangers, pipe runs, valves and fittings; receipt through installation, test & check-out
FRP Type I, Grade 2 (large bore > 1-1/2")	LF	Includes hangers, pipe runs, valves and fittings; receipt through installation, test & check-out
PVC Pipe Small Bore (1/2" - 2-1/2")	LF	Includes hangers, pipe runs, valves and fittings; receipt through installation, test & check-out
PVC Pipe Large Bore (> 2-1/2")	LF	Includes hangers, pipe runs, valves and fittings; receipt through installation, test & check-out
Ductile Iron Restrained Push-on Joint Large Bore (> 3")	LF	Includes hangers, pipe runs, valves and fittings; receipt through installation, test & check-out
Ash Pipe (Ashcolite or Nuvaloy), Ash Sluice Pipe (Basalt lined)	LF	Includes hangers, pipe runs, valves and fittings; receipt through installation, test & check-out
HDPE Above Ground Piping	LF	Includes hangers, pipe runs, valves and fittings; receipt through installation, test & check-out
SS Tubing	LF	Includes hangers, pipe runs, valves and fittings; receipt through installation, test & check-out
Electrical		
Cable 4160V and above	LF	receiving through installation; does not include terminations
Cable below 4160V	LF	receiving through installation; does not include terminations; includes instrument, control, power, communications and fiber optic cable
Cable Bus	LF	receiving through installation including hangers; does not include terminations
Ground Cable (above ground)	LF	receiving through installation including hangers; includes terminations
Cable Tray w/ covers and accessories	LF	receiving through installation including hangers and supports;
Rigid Aluminum Conduit and Flex Conduit	LF	receiving through installation including hangers and supports;
Terminations cable 4160V and above	EA	Includes tagging and terminating wire & cable; one termination for each end of each conductor
Terminations cable below 4160V	EA	Includes tagging and terminating wire & cable; one termination for each end of each conductor
Below ground PVC conduit	LF	receiving through installation including supports; does not include excavation and backfill or concrete encasement