

COOL-FIT 2.0 Installation Times

Average installation times for effort estimation of COOL-FIT 2.0 piping systems

1 Introduction

The times listed below are non binding guideline values, for which we exclude any warranty. The times were determined in practical experiments and compared with projects which were already realized. Among other things, the following factors can influence the time:

- Environmental conditions / installation on site
- Accessibility of installation site, eg. Below the ceiling, in the shaft, etc.
- Ratio of pipe length / number of fittings
- Experience of installer

All work was done on a workbench. The following work steps were taken into account:

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|----------------------------------------------------------------------|-----|
| 1. Take the pipe, fix the pipe, mark the pipe and cut it to length | 2 x |
| 2. Edit pipe with removal and peeling tool (optional) | 2 x |
| 3. Clean pipe and prepare for connection | 2 x |
| 4. Unpack and clean fitting | 1 x |
| 5. Mount pipe 1 & 2 and the fitting in the clamping tool | 1 x |
| 6. Mark the insertion depth on both pipes | 1 x |
| 7. Scan fitting with electrofusion unit, start welding process | 1 x |
| 8. Welding process finished = Completion of the installation process | |

2 Installation times

2.1 Processing of non-shortened pipes (5m, ex works).

Dimension (mm)	Coupler (min)	Insert pipe- per meter ¹⁾ (min)	Pre-insulated flange adapter (min)	Pre-insulated Union (min)	Fixed point (min)	Flexible hose (min)	Barrel nipple (min)
d 32	3,00	3,00	15,00	15,00	15,00	3,00	3,00
d 40	4,00	3,00	16,00	16,00	16,00	3,00	3,00
d 50	5,00	4,00	17,00	17,00	17,00	4,00	4,00
d 63	5,00	4,00	18,00	18,00	18,00	4,00	4,00
d 75	6,00	5,00	20,00		20,00		5,00
d 90	7,00	5,00	21,00		21,00		5,00
d 110	7,00	6,00	21,00		21,00		6,00
d 140	8,00	6,00	23,00		23,00		6,00

¹⁾ Clamps already pre-assembled

2.2 Processing of shortened pipes

Dimension	Coupler¹⁾	Elbow 45° / 90°¹⁾	Tee & Coupler¹⁾	Reduction²⁾	Insert pipe - per meter³⁾	Ball valve Pre-insul.	Butterfly valve
(mm)	(min)	(min)	(min)	(min)	(min)	(min)	(min)
d 32	9,30	9,30	14,30	5,50	3,00	9,00	
d 40	10,50	10,50	15,30	6,50	3,00	10,50	
d 50	12,30	12,30	18,50	8,50	4,00	12,50	
d 63	14,10	14,10	21,00	10,00	4,00	14,00	
d 75	17,00	17,00	25,30	11,50	5,00	16,00	
d 90	18,30	18,30	29,00	13,00	5,00	18,00	
d 110	22,00	22,00	37,00	14,00	6,00		25,00
d 140	24,10	28,10 ⁴⁾	42,00 ⁴⁾	16,50 ⁴⁾	6,00		30,00

¹⁾ Incl. 2 x pipe processing

³⁾ Clamps already pre-assembled

²⁾ Incl. 1 x pipe processing

⁴⁾ Spigot fitting - Typ B