

PHYSICAL DEMANDS ANALYSIS (EXAMPLE)  
**RESIDENTIAL AIR CONDITIONING INSTALLER**



**JOB DESCRIPTION**

TASK #	TASK DESCRIPTION	% OF SHIFT
1	Drive to site, unload, and plan areas on site for install	10%
2	Install brackets, air conditioning unit, and power to the unit	80%
3	Clean up and loading	10%

*The physical demands may vary depending on company and location.  
 Confirm this physical demands analysis is an accurate representation of the specific job.*

**ITEMS HANDLED**

- |  |  |                                      |   |
|--|--|--------------------------------------|---|
| • Shovel (4 lbs.)                        | • Sheet metal pipe   | • Reciprocal saw (29 lbs.)           | • Nitrogen tank (35 lbs.)                 |
| • Brackets (up to 8 lbs.)                | • Vacuum pump (33 lbs.)                                      | • Circular/skill saw (up to 29 lbs.) | • 6-foot ladder (19 lbs.)                 |
| • Refrigerant                            | • Copper pipes (15 lbs.)                                     | • Hand tools (up to 16 lbs.)         | • Tool belt (16 lbs.)                     |
| • Air conditioning unit (up to 5 tonnes) | • Drills – right angle, Sozo, impact, hammer (up to 29 lbs.) | • Acetylene compressed gas (30 lbs.) | • Milwaukee electrical tool kit (23 lbs.) |

**PERSONAL PROTECTIVE EQUIPMENT**

- Work Boots
- Safety glasses
- Gloves

**ENVIRONMENTAL EXPOSURE**

Works inside or outside near buildings. Exposed to restricted spaces, refrigerant, hot work, and nitrogen under compression.

## PHYSICAL DEMANDS ANALYSIS (EXAMPLE) RESIDENTIAL AIR CONDITIONING INSTALLER

<b>JOB TITLE</b>	RESIDENTIAL AIR CONDITIONING INSTALLER					<b>LENGTH OF SHIFT (HRS)</b>	8
<b>JOB DESCRIPTION</b>							
An Air conditioning installer installs air conditioning units.							
<b>PHYSICAL JOB DEMANDS - Grade using a scale of 0 - 4</b>							
<b>0 = NOT REQUIRED</b>		<b>1 = SELDOM REQUIRED: &lt; 5%</b>			<b>2 = MINOR REQUIREMENT: 5-33%</b>		
-		Less than 30 minutes per day or not daily			30 minutes up to 3.5 hours per day or 1 repetition every 30 minutes		
<b>3 = OCCASIONAL REQUIREMENT: 34-66%</b>				<b>4 = FREQUENT REQUIREMENT: 67-100%</b>			
3.5 hours up to 6.5 hours per day or 1 repetition every 2 minutes				6.5 hours per day up to shift length or 1 repetition every 30 seconds			
<b>INSTRUCTIONS:</b> Place an X under number 0,1,2,3 or 4 to identify the frequency of each body demand or exposure.							
<b>PHYSICAL JOB DEMANDS</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>DESCRIBE THE TASK(S) PERFORMED</b>	
<b>WHOLE BODY DEMANDS</b>							
SITTING	X					-	
SITTING WITH VIBRATION/JARRING	X					-	
DRIVING			X			Driving to and from site.	
STANDING				X		Installation of brackets, air conditioning units, reviewing site, hazard assessment.	
RUNNING	X					-	
<b>WALKING</b>							
LEVEL			X			Throughout the site (interior).	
UNEVEN GROUND			X			Throughout the site (exterior).	
SLOPES / RAMPS			X			Exterior of site.	
<b>CLIMBING</b>							
REGULAR STAIRS		X				Climbing stairs throughout site to access various levels.	
STEEP STAIRS	X					-	
LADDERS		X				Accessing ceiling/higher levels to install.	
OTHER	X					-	
<b>LOW LEVEL WORK</b>							
KNEELING				X		During installation of bracket, measuring air conditioning unit, installation of power to unit.	
SQUATTING				X		During installation of bracket, measuring air conditioning unit, installation of power to unit.	
CRAWLING		X				In crawl spaces (dependent on site).	

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PHYSICAL JOB DEMANDS	0	1	2	3	4	DESCRIBE THE TASK(S) PERFORMED
<b>SPECIFIC BODY DEMANDS</b>						
<b>NECK MOVEMENTS</b>						
<b>BENDING</b>						
SUSTAINED				X		During installation of bracket, air conditioning unit, power to unit, manipulating copper pipes, checking surroundings, loading, and unloading on site, hazard assessment. Installation of power to unit, hazard assessment.
REPETITIVE	X					-
<b>TWISTING</b>						
SUSTAINED	X					-
REPETITIVE				X		Installation of copper pipe, power to unit, checking surroundings, loading, and unloading on site, hazard assessment.
<b>TRUNK MOVEMENTS</b>						
<b>BENDING</b>						
SUSTAINED				X		Accessing equipment/tools and materials from site, installation of brackets, shovelling for bracket placement, measuring placement on air conditioning unit, installation of power to unit.
REPETITIVE	X					-
<b>TWISTING</b>						
SUSTAINED		X				Accessing bracket during installation, installation of air conditioning unit (placing onto bracket), installation of power to unit.
REPETITIVE	X					-
<b>SHOULDER MOVEMENTS</b>						
OVERHEAD			X			During installation of copper pipes, accessing air conditioning unit panel (while kneeling), attaching wires from air conditioning unit.
FORWARD REACHING				X		During installation of brackets, while using hand and power tools, installing copper pipe, electrical cords, lifting and retrieving materials/air conditioning unit from truck, loading, and unloading on site, site clean up, etc.
<b>GRIPPING DEMANDS</b>						
<b>DOMINANT HAND</b>						
REPETITIVE	X					-
CONTINUOUS					X	During installation of brackets, while using hand and power tools, lifting and carrying materials/air conditioning unit, loading, and unloading on site, site clean up, etc.
<b>NON-DOMINANT HAND</b>						
REPETITIVE	X					-
CONTINUOUS				X		During installation of brackets, while using hand and power tools, lifting and carrying materials/air conditioning unit, loading, and unloading on site, site clean up, etc.
<b>FINGER DEXTERITY</b>			X			Pinching copper wire during installation, installing brackets, material set up, etc.

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PHYSICAL JOB DEMANDS	0	1	2	3	4	DESCRIBE THE TASK(S) PERFORMED
<b>MANUAL HANDLING DEMANDS</b>						
<b>LIFTING</b>						
LIGHT (MAX 20 LB / 9 KG)				X		Lifting brackets (8 lb.), copper lines (15 lb.), ladder (20 lb.), shovel (4 lb.), hand tools (16 lbs.), etc.
MEDIUM (MAX 50 LB / 22.5 KG)			X			Drills (up to 29 lbs.), saws (up to 29 lbs.), acetylene compressed gas (30 lbs.), nitrogen tank (35 lbs.), vacuum pump (33 lbs.), etc. Lifting ducts (30 lbs.) to install, running the line, lifting panel of air conditioning unit.
HEAVY (MAX 100 LB / 45 KG)	X					-
VERY HEAVY (OVER 100 LB / 45 KG)		X				Air conditioning unit (up to 235 lbs. per worker x 2).
<b>CARRYING</b>						
LIGHT (MAX 20 LB / 9 KG)		X				Carrying copper pipes (15 lbs.) and tool belt (16 lb.) throughout the site.
MEDIUM (MAX 50 LB / 22.5 KG)		X				Power and hand tools (up to 29 lbs.), drills and saws (up to 29 lbs.), ladder (20 lbs.), vacuum pump (33 lbs.), etc. during loading and unloading, throughout the site.
HEAVY (MAX 100 LB / 45 KG)	X					-
VERY HEAVY (OVER 100 LB / 45 KG)		X				Air conditioning unit (up to 235 lb. per worker x 2).
<b>MOBILE PUSHING</b>						
LIGHT (MAX 20 LB / 9 KG)	X					-
MEDIUM (MAX 50 LB / 22.5 KG)	X					-
HEAVY (MAX 100 LB / 45 KG)	X					-
VERY HEAVY (OVER 100 LB / 45 KG)	X					-
<b>MOBILE PULLING</b>						
LIGHT (MAX 20 LB / 9 KG)	X					-
MEDIUM (MAX 50 LB / 22.5 KG)	X					-
HEAVY (MAX 100 LB / 45 KG)	X					-
VERY HEAVY (OVER 100 LB / 45 KG)	X					-
<b>STATIC PUSHING/PULLING</b>						
LIGHT (MAX 20 LB / 9 KG)	X					-
MEDIUM (MAX 50 LB / 22.5 KG)	X					-
HEAVY (MAX 100 LB / 45 KG)		X				Pushing/pulling air conditioning unit onto brackets and out of truck, shovelling, using hand tools (hammer, wrench), pushing copper wire, etc.
VERY HEAVY (OVER 100 LB / 45 KG)	X					-