

## Skill name

## Plumbing and Heating

## Criteria

## Mark

A	WSSS Aspect 1	10.00
B	WSSS Aspect 2	10.00
C	WSSS Aspect 3	10.00
D	WSSS Aspect 4	40.00
E	WSSS Aspect 5	15.00
F	WSSS Aspect 6	15.00
G		
H		
I		

Sub Criteria ID	Sub Criteria Name or Description	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
A1	Goggles and safety glasses	M M M M	Day 1: Each day: Has the C wear the requested correct goggles : Day 2: Each day: Has the C wear the requested correct goggles : Day 3: Each day: Has the C wear the requested correct goggles : Day 4: Each day: Has the C wear the requested correct goggles :	
A2	Long Sleeves	M	Over all days: Has the C wear the requested long sleeves when c	
A3	Heat resistant gloves	M	Over all days: Has the C wear heat resistant gloves when carryin	
A4	Material usage: Pipes	M	Over all days: Does C needs not more Pipes?	
A5	Material usage: Fittings	M	Over all days: Does C needs not more Fittings?	
A6	Completion in allocated time			

		M M M M	Module 1: Is the Module complete in allocated time? Module 2: Is the Module complete in allocated time? Module 3: Is the Module complete in allocated time? Module 4: Is the Module complete in allocated time?	
Sub Criteria ID	Sub Criteria Name or Description	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
B1	Material usage: Order Form	M M M	Are all Pipes lengths on the Order List Are all Fittings on the Order List? Is the order form complete and can be used for to prepare the or	
B2	Cleanliness	M M M M M M M M M	Are on the Walls no help lines for the construction visible (except Are on the Walls no burns visible? Are on the Walls no dirty positions visible that are bigger than 2 c Are on the walls no wrong drill or screw holes visible which are m Day 1: Are on the workstation floor no pipe odds? Day 2: Are on the workstation floor no pipe odds? Day 3: Are on the workstation floor no pipe odds? Day 4: Are on the workstation floor no pipe odds?	
Sub Criteria ID	Sub Criteria Name or Description	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
C1	Design A	M M M M M	Does the installation meet the specification of the task description Does the installation on the drink water pipe side looks like the de Does the installation on the heating pipe side looks like the desig Does the installation on the solar panel pipe side looks like the de Are all bends visible on the drawing as requested?	
C2	Design B	M	Is it possible for another contractor to produce the installation cor	

Sub Criteria ID	Sub Criteria Name or Description	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
D1	Machine bending	J	Bend 1: will be selected at random from a draw prior to starting a	0 1 2 3
		J	Bend 2: will be selected at random from a draw prior to starting a	0 1 2 3
		J	Bend 3: will be selected at random from a draw prior to starting a	0 1 2 3
D2	Pressing Prestabo outside	J	Pressing 1 outside: will be selected at random from a draw prior t	0 1 2 3
		J	Pressing 2 outside: will be selected at random from a draw prior t	0 1 2 3
		J	Pressing 3 outside: will be selected at random from a draw prior t	0 1 2 3

D3	Pressing Prestabo inside	J	Pressing 1 inside: will be selected at random from a draw prior to	0
				1
				2
				3
D4	Crimping	J	Pressing 2 inside: will be selected at random from a draw prior to	0
				1
				2
				3
D5	Threads	J	Crimping 1: will be selected at random from a draw prior to startin	0
				1
				2
				3
D6	All Fittings and Valves	J	Crimping 2: will be selected at random from a draw prior to startin	0
				1
				2
				3
		J	Threads 1: will be selected at random from a draw prior to startin	0
				1
				2
				3
		J	Threads 2: will be selected at random from a draw prior to startin	0
				1
				2
				3
		J	Threads 3: will be selected at random from a draw prior to startin	0
				1
				2
				3

D7	Soldering	M	Hexagonal face 1: will be selected at random from a draw prior to	
		M	Hexagonal face 1: will be selected at random from a draw prior to	
		J	Copper, soft soldering outside 1: will be selected at random from	0 1 2 3
		J	Copper, soft soldering outside 2: will be selected at random from	0 1 2 3
		J	Copper, soft soldering outside 3: will be selected at random from	0 1 2 3
		J	Copper, soft soldering outside 4: will be selected at random from	0 1 2 3
		J	Copper, soft soldering inside 1: will be selected at random from a	0 1 2 3
		J	Copper, soft soldering inside 2: will be selected at random from a	0 1 2 3
D8	Sanitation pipe	J	Butt welding 1: will be selected at random from a draw prior to sta	0 1 2 3

D9	Bends & Angles	J	Butt welding 2: will be selected at random from a draw prior to st	0
				1
				2
				3
D10	Plumb & Level A	J	Butt welding 3: will be selected at random from a draw prior to st	0
				1
				2
				3
D11	Plumb & Level B	M	Bends & Angles 1: will be selected at random from a draw prior to	
		M	Bends & Angles 2: will be selected at random from a draw prior to	
		M	Bends & Angles 3: will be selected at random from a draw prior to	
		M	Bends & Angles 4: will be selected at random from a draw prior to	
D12	Plumb & Level C	M	Plumb & Level 1: will be selected at random from a draw prior to	
		M	Plumb & Level 2: will be selected at random from a draw prior to	
		M	Plumb & Level 3: will be selected at random from a draw prior to	
		M	Plumb & Level 4: will be selected at random from a draw prior to	
D13	Dimension A	M	Plumb & Level 5: will be selected at random from a draw prior to	
		M	Plumb & Level 6: will be selected at random from a draw prior to	
		M	Plumb & Level 7: will be selected at random from a draw prior to	
		M	Plumb & Level 8: will be selected at random from a draw prior to	
D14	Dimension B	M	Plumb & Level 1: will be selected at random from a draw prior to	
		M	Plumb & Level 2: will be selected at random from a draw prior to	
		M	Plumb & Level 3: will be selected at random from a draw prior to	
		M	Dimension 1: will be selected at random from a draw prior to star	
D15	Dimension C	M	Dimension 2: will be selected at random from a draw prior to star	
		M	Dimension 3: will be selected at random from a draw prior to star	
		M	Dimension 4: will be selected at random from a draw prior to star	
		M	Dimension 5: will be selected at random from a draw prior to star	
D16	Dimension D	M	Dimension 6: will be selected at random from a draw prior to star	
		M		

D17	Dimension E	M	Dimension 7: will be selected at random from a draw prior to start	
		M	Dimension 8: will be selected at random from a draw prior to start	
		M	Dimension 9: will be selected at random from a draw prior to start	
D18	Dimension F	M	Dimension 10: will be selected at random from a draw prior to start	
		M	Dimension 11: will be selected at random from a draw prior to start	
		M	Dimension 12: will be selected at random from a draw prior to start	
D19	Dimension G	M	Dimension 1: will be selected at random from a draw prior to start	
		M	Dimension 2: will be selected at random from a draw prior to start	
		M	Dimension 3: will be selected at random from a draw prior to start	
D20	Holes marking	M	Dimension 4: will be selected at random from a draw prior to start	
		M	Dimension 5: will be selected at random from a draw prior to start	
		M	Dimension 6: will be selected at random from a draw prior to start	
D21	Careful handling	M	Are all holes marked at the necessary side for that the Experts/W	
D22	All Valves and Pumps	M	Is the pipe galvanizing not damaged?	
		M	Are the shower room appliance (Ceramic, Shower Valve aso.) free	
		M	Are the Pumps, Cylinder, Solar Panel, Radiator aso. free from da	
		M	Are all valves correct in the flow direction?	
		M	Are all pumps correct in the flow direction?	
Sub Criteria ID	Sub Criteria Name or Description	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
E1	Pressure Test			
		M	Cold: Do the pipe/pipes not leak?	
		M	Hot: Do the pipe/pipes not leak?	
		M	Gas: Do the pipe/pipes not leak?	
		M	Heating flow: Do the pipe/pipes not leak?	
		M	Heating return: Do the pipe/pipes not leak?	
		M	Cylinder Pipes: Do the pipe/pipes not leak?	
		M	Did the Competitor open all necessary valves for to check the sys	

E2	Project completion/handover as requested A	M	After the pressure test of Module 1 did the Competitor turned off	
		M	Are all flows and returns heating pipe connections on the correct	
		M	Are all cold and hot water pipes connections on the correct end of	
		M	Module 1: Are all pipe diameters as it should be?	
E3	Project completion/handover as requested B	M	Module 2-4: Are all pipe diameters as it should be?	
		M	Module 1: Looks the module as on the drawings requested after	
		M	Module 2: Looks the module as on the drawings requested after	
		M	Module 3: Looks the module as on the drawings requested after	
		M	Module 3: Looks the module as on the drawings requested after	
Sub Criteria ID	Sub Criteria Name or Description	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
F1	Filling the Pipes systems Hot and Cold Water	M	Does the Competitor removed completely the air, when he filled u	
F2	Leak controlling after filling with water	M	After the filling of the pipe systems hot and cold water did the Co	
		M	After the filling of the pipe systems hot and cold water did the Co	
		M	After the filling of the pipe systems hot and cold water did the Co	
		M	After checking if all sanitary appliance works, did the competitor c	
		M	After checking if all sanitary appliance works, did the competitor c	
F3	Handover to Customer	M	Did the competitor start the handover to the customer after he ha	
		M	Did the competitor start the handover to the customer after he ha	
		M	Did the competitor explain/shows to the customer the flushing of	
		M	Did the competitor explain/shows to the customer how the closet	
		M	Did the competitor explain/shows to the customer how the wash	
		M	Did the competitor explain/shows to the customer how the wash	
		M	Did the competitor explain/shows to the customer how he can cle	
		M	Did the competitor explain/shows to the customer how the showe	
		M	Did the competitor explain/shows to the customer how he can cle	
		M	Did the competitor gives to the customer all information papers o	
		M	After the handover did the Competitor say "thank you" and "good	



Sub Criteria ID	Sub Criteria Name or Description	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
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Sub Criteria ID	Sub Criteria Name or Description	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score

Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Measurement Only)	WSSS Section	Max Mark
After 1 warning per competition day	yes/no	1	0.50
After 1 warning per competition day	yes/no	1	0.50
After 1 warning per competition day	yes/no	1	0.50
After 1 warning per competition day	yes/no	1	0.50
No warning	yes/no	1	1.00
No warning.	yes/no	1	1.00
Yes = full marks / 1m -2m over all Systems = half marks /	yes	1	1.00
Yes = full marks / 1 - 2 fittings over all Systems = half marks	yes	1	1.00

Criterion A      Total Mark      10.00

	yes/no	1	1.00
	yes/no	1	1.00
	yes/no	1	1.00
	yes/no	1	1.00
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Measurement Only)	WSSS Section	Max Mark
Tolanz e +- 0.5 m	yes/no	2	1.33
	yes/no	2	1.33
	yes/no	2	1.34
	yes/no	2	0.75
	yes/no	2	0.75
	yes/no	2	0.75
	yes/no	2	0.75
to check when the Competitor goes to the lunch and/or wh	yes/no	2	0.75
to check when the Competitor goes to the lunch and/or wh	yes/no	2	0.75
to check when the Competitor goes to the lunch and/or wh	yes/no	2	0.75
to check when the Competitor goes to the lunch and/or wh	yes/no	2	0.75
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Measurement Only)	WSSS Section	Max Mark
Yes = full marks / 1 fault = 0.5 marks / more than 1 fault =	yes/no	3	1.67
Yes = full marks / 1 fault = 0.5 marks / more than 1 fault =	yes	3	1.67
Yes = full marks / 1 fault = 0.5 marks / more than 1 fault =	yes	3	1.67
Yes = full marks / 1 fault = 0.5 marks / more than 1 fault =	yes	3	1.67
Yes = full marks / 1 fault = 0.5 marks / more than 1 fault =	yes	3	1.67
	yes/no	3	1.65

Criterion B      Total Mark      10.00

Criterion C      Total Mark      10.00

Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Measurement Only)	WSSS Section	Max Mark
performance below industry standard to any extent, include performance meets industry standard performance meets industry standard and surpasses that excellent or outstanding performance relative to industry's		4	0.33
performance below industry standard to any extent, include performance meets industry standard performance meets industry standard and surpasses that excellent or outstanding performance relative to industry's		4	0.33
performance below industry standard to any extent, include performance meets industry standard performance meets industry standard and surpasses that excellent or outstanding performance relative to industry's		4	0.34
performance below industry standard to any extent, include performance meets industry standard performance meets industry standard and surpasses that excellent or outstanding performance relative to industry's		4	0.60
performance below industry standard to any extent, include performance meets industry standard performance meets industry standard and surpasses that excellent or outstanding performance relative to industry's		4	0.60
performance below industry standard to any extent, include performance meets industry standard performance meets industry standard and surpasses that excellent or outstanding performance relative to industry's		4	0.60

Criterion D      Total Mark      40.00

performance below industry standard to any extent, include performance meets industry standard performance meets industry standard and surpasses that excellent or outstanding performance relative to industry's	4	0.60
performance below industry standard to any extent, include performance meets industry standard performance meets industry standard and surpasses that excellent or outstanding performance relative to industry's	4	0.60
performance below industry standard to any extent, include performance meets industry standard performance meets industry standard and surpasses that excellent or outstanding performance relative to industry's	4	0.50
performance below industry standard to any extent, include performance meets industry standard performance meets industry standard and surpasses that excellent or outstanding performance relative to industry's	4	0.50
performance below industry standard to any extent, include performance meets industry standard performance meets industry standard and surpasses that excellent or outstanding performance relative to industry's	4	0.67
performance below industry standard to any extent, include performance meets industry standard performance meets industry standard and surpasses that excellent or outstanding performance relative to industry's	4	0.67
performance below industry standard to any extent, include performance meets industry standard performance meets industry standard and surpasses that excellent or outstanding performance relative to industry's	4	0.66

Are the hexagonal faces not damaged (at no position)?	yes/no	4	0.50
Are the hexagonal faces not damaged (at no position)?	yes/no	4	0.50
performance below industry standard to any extent, include		4	0.83
performance meets industry standard			
performance meets industry standard and surpasses that			
excellent or outstanding performance relative to industry's			
performance below industry standard to any extent, include		4	0.83
performance meets industry standard			
performance meets industry standard and surpasses that			
excellent or outstanding performance relative to industry's			
performance below industry standard to any extent, include		4	0.83
performance meets industry standard			
performance meets industry standard and surpasses that			
excellent or outstanding performance relative to industry's			
performance below industry standard to any extent, include		4	0.83
performance meets industry standard			
performance meets industry standard and surpasses that			
excellent or outstanding performance relative to industry's			
performance below industry standard to any extent, include		4	0.84
performance meets industry standard			
performance meets industry standard and surpasses that			
excellent or outstanding performance relative to industry's			
performance below industry standard to any extent, include		4	0.84
performance meets industry standard			
performance meets industry standard and surpasses that			
excellent or outstanding performance relative to industry's			
performance below industry standard to any extent, include		4	0.67
performance meets industry standard			
performance meets industry standard and surpasses that			
excellent or outstanding performance relative to industry's			

performance below industry standard to any extent, include	4	0.67
performance meets industry standard		
performance meets industry standard and surpasses that		
excellent or outstanding performance relative to industry's		
	4	0.66
performance below industry standard to any extent, include		
performance meets industry standard		
performance meets industry standard and surpasses that		
excellent or outstanding performance relative to industry's		
Angle 0° up to 1° = full marks / Angle above 1° = 0 Marks	4	0.50
Angle 0° up to 1° = full marks / Angle above 1° = 0 Marks	4	0.50
Angle 0° up to 1° = full marks / Angle above 1° = 0 Marks	4	0.50
Angle 0° up to 1° = full marks / Angle above 1° = 0 Marks	4	0.50
Gradient 0° up to 0.5° = full mark / Gradient above than 0.0	4	0.64
Gradient 0° up to 0.5° = full mark / Gradient above than 0.0	4	0.64
Gradient 0° up to 0.5° = full mark / Gradient above than 0.0	4	0.64
Gradient 0° up to 0.5° = full mark / Gradient above than 0.0	4	0.64
Gradient 0° up to 0.5° = full mark / Gradient above than 0.0	4	0.64
Gradient 0° up to 0.5° = full mark / Gradient above than 0.0	4	0.64
Gradient 0° up to 0.5° = full mark / Gradient above than 0.0	4	0.62
Gradient 0° up to 0.5° = full mark / Gradient above than 0.0	4	0.62
Gradient 0° up to 0.5° = full mark / Gradient above than 0.0	4	0.64
Gradient 0° up to 0.5° = full mark / Gradient above than 0.0	4	0.64
Gradient 0° up to 0.5° = full mark / Gradient above than 0.0	4	0.64
Dimension +/- 2 mm incl. = full marks / Dimension +/- 4 mm	4	0.61
Dimension +/- 2 mm incl. = full marks / Dimension +/- 4 mm	4	0.61
Dimension +/- 2 mm incl. = full marks / Dimension +/- 4 mm	4	0.61
Dimension +/- 2 mm incl. = full marks / Dimension +/- 4 mm	4	0.61
Dimension +/- 2 mm incl. = full marks / Dimension +/- 4 mm	4	0.61
Dimension +/- 2 mm incl. = full marks / Dimension +/- 4 mm	4	0.61





yes/no	5	1.25
yes/no	5	0.50
yes/no	5	1.00
yes/no	5	0.25
yes/no	5	0.25
yes/no	5	0.75
yes/no	5	0.75
yes/no	5	0.75
yes/no	5	0.75

Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Measurement Only)	WSSS Section	Max Mark
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Criterion F      Total Mark      15.00

yes/no	6	0.50
yes/no	6	1.00
yes/no	6	1.00
yes/no	6	1.00
yes/no	6	1.00
yes/no	6	1.00
yes/no	6	0.86
yes/no	6	0.86
yes/no	6	0.88
yes/no	6	0.86
yes/no	6	0.86
yes/no	6	0.86
yes/no	6	0.86
yes/no	6	0.88
yes/no	6	0.86
yes/no	6	0.86
yes/no	6	0.86

There should no dirty/waste odds, no packing material and

Long and short flush.

In English or in his native language.

Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Measurement Only)	WSSS Section	Max Mark
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Measurement Only)	WSSS Section	Max Mark
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Measurement Only)	WSSS Section	Max Mark

Criterion G    Total Mark    0.00

Criterion H    Total Mark    0.00

Criterion I    Total Mark    0.00

Competition    Total Mark    100.00