

TCAL Customs – Sales Catalog

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by Brad Barrick

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- I. Customs Overview, Expectations (pg. 3)
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Customs Sales Link: (All key documents needed to sell customs found here.)

\\global.tektronix.net\\global\\namerica\\American Fork\\Workgrps\\Product Development\\public\\Specials\\AF_Customs_Std_Work.htm

Sales Guide to Manage Customer Expectations:

1. Custom product design is like accelerated R&D. Custom product is handled differently from standard products. Engineers are involved from the product definition to the build and testing of the product. Prices are higher for custom products. Pricing will be quoted specific to each order and will be based primarily on engineering time, production time, and material/product costs.
2. We do not accept penalties associated with custom orders. We will do our best to meet customer delivery needs, but quality and other custom products already on order will take priority. Please manage the customer expectations that the lead times will be longer for custom products.
3. Customs are a great way to get the customer what they need. We are here to help. Please feel free to contact the team with any questions or custom applications.

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1. **Pre-designed Custom Bath:** (Use the Custom Product Specification Sheets found in the following pages of this presentation)
 - a. Ask the Customs Team for a price and lead time.
 - b. Customer signs the approval drawing (specification sheet) and requests item activation. Note: If the customer is not located in the USA, the item activation can take several weeks.
 - c. Customs Team will activate the item & report an estimated delivery time. The Sales team can then place the P.O.

2. **New Custom Bath:** (Use the Custom Feasibility Form)
 - a. Customer/Sales fills out a Feasibility Form, which can be found here under “FORMS...Feasibility Form”
[\\global.tektronix.net\global\namerica\American Fork\Workgrps\Product Development\public\Specials\AF_Customs_Std_Work.htm](http://global.tektronix.net/global/namerica/American Fork/Workgrps/Product Development/public/Specials/AF_Customs_Std_Work.htm)
 - b. The Customs Team will hold a feasibility meeting. A customer approval drawing with specifications, price, and lead time will be sent for the customer to sign.
 - c. Customer signs the approval drawing (specification sheet) and requests item activation. Note: If the customer is not located in the USA, the item activation can take several weeks.
 - d. Customs Team will activate the item & report an estimated delivery time. The Sales team can then place the P.O.

Model	Fluke Item	Description	Catalog Page
6BATH-002-256	4216567	6BATH-002-26,BATH, (6022), MAX ACCESS, 40 TO 160C	8
6BATH-003-256	4226306	6BATH-003-256,BATH, DEEP OIL, 300C, 220V 50/60HZ,MAX ACC , (6024-MAX 36 DEP)	9
6BATH-005-156	4329134	6BATH-005-156,BATH, 37C TO 55C, 110V 50/60HZ	10
6BATH-006-256	4550137	6BATH-006-256, 75°C TO 175°C, WITH HIGH WATTAGE HEATING CAPABILITY.	11
6BATH-007-256	4689323	6BATH-007-256,BATH, (6024) DEEP OIL, 14 X 14 TANK, 300C, 220V 50/60HZ,MAX ACC	12
6BATH-009-256	4841355	6BATH-009-256,BATH,(6024-MAX) DEEP OIL, 220V 50/60HZ, ACC 10 X 14 IN, 18 IN TANK DEPTH, W/RACK FOR PCA'S	13
6BATH-010-256	4907694	6BATH-010-256,BATH,(6024-MAX) OIL, 220V 50/60HZ, ACC 10 X 14 IN, ALL SST, WITH CART	14
6BATH-011-256	4945888	BATH,(6024-MAX) DEEP OIL, 220V 50/60HZ, 24 IN TANK DEPTH	15
6BATH-012-256	4964746	6BATH-012-256, 6050H BATH, 220V 50/60 HZ MODIFIED STIRRING	16
4029-NC-26	3974609	4029-NC-26,NC WINDOW BATH, 10 TO 60C, SPL	17
7341-26	4104623	CUSTOM 7341, MAKING 220 VAC 60Hz AVAILABLE	18
7437-26	4290363	CUSTOM 7437, RAPID COOL DEEP, -40 TO 150C, 220 VAC 60 HZ	19
7437-25	4739807	CUSTOM 7437, RAPID COOL DEEP, -40 TO 150C, 220 VAC 50 HZ	20
7BATH-001-26	4081629	7BATH-001-26,BATH, RESISTOR, -30 TO 60C, 220V 60HZ (7009 TR)	21
7BATH-002-25	4090224	7BATH-002-25,BATH, MID RANGE, -10 TO 110C, (7011 8IN DEEP)	22
7BATH-005-26	4121541	7BATH-005-26,BATH, RESISTER, 220V 60HZ, 75 TO 175C	23
7BATH-008-25	4129750	7BATH-008-25,BATH, DEEP-WELL COMPACT, -30 TO 200C, 10MK STABILITY	24
7BATH-009-26	4216559	7BATH-009-26,BATH, (7080), MAX ACCESS, TANK EXT 18 IN, -80 TO 100C	25
7BATH-010-26	4236396	7BATH-010-26,BATH, (7437), RAPID COOL DEEP, W/ CUSTOM ACCESS COVER, -30 TO 172C	26
7BATH-011-26	CONCEPT	7BATH-011-25,BATH, (7437), RAPID COOL DEEP, W/ CUSTOM ACCESS COVER, -30 TO 172C	27
7BATH-012-26	4316804	7BATH-012-26, BATH, (7037), DEEP LOTEMP,-40 TO 140C,220V60HZ,MAX ACC	28
7BATH-013-25	4316769	7BATH-013-25, BATH (7100) -100°C TO 110°C	29
7BATH-013-26	4488058	7BATH-013-26, BATH (7100) -100°C TO 110°C	30
7BATH-015-25	4323677	7BATH-015-25, BATH, (UNC bath), 4 WINDOW WITH REMOVABLE SKIN, 220V 50HZ	31
7BATH-016-16	4352866	7BATH-016-16, BATH, (7012), WINDOW, 110V, 60HZ	32

Active Custom Bath Models

FLUKE®

Model	Fluke Item	Description	Catalog Page
7BATH-017-25	4331322	7BATH-017-25, BATH, (7381) DEEP-WELL COMPACT, -82 TO 150C, 50HZ	33
7BATH-018-25	4090224	7BATH-018-25, BATH, (7011), MID RANGE, -10C TO 110C, RS-232	34
7BATH-019-25	4380513	7BATH-019-25, BATH, (7051A), [custom tank dimensions]	35
7BATH-020-26	4384553	7BATH-020-26, BATH, (7037), DEEP LOTEMP, 36 DEEP, 40 TO 160C, 220V 60HZ, MAX ACC	36
7BATH-021-25	4419521	7BATH-021-25, BATH, (7012), WINDOW, -5 TO 80C, 230V 50HZ	37
7BATH-022-25	4468164	7BATH-022-25, BATH, (7015), 0C to 110C, 220V, 50HZ	38
7BATH-024* SEE CATALOG PAGE	4594961	7BATH-024-25, BATH, (7041), -40C TO 100C, DUAL WINDOW, 220V, 50HZ	39
7BATH-025-16	4594977	7BATH-025-16, BATH, (7321), -20C TO 177C, 110V 60HZ	40
7BATH-026-25	4607385	7BATH-026-25, BATH, (7040-MAX), -40C TO 125C, 220V 50HZ	41
7BATH-027-25	4611363	7BATH-027-25, BATH, (7012), -10C TO 150C, 220V 50HZ, EXTENDED TEMP. RANGE	42
7BATH-029-25	4689345	7BATH-029-26, BATH, (7009), 24 INCH DEEP, 20 TO 30C, 230V 50HZ	43
7BATH-030-25	4690040	7BATH-030-25, BATH, (7015), 23.6 INCH DEEP, 10 TO 50C, 230V 50HZ	44
7BATH-031-26	4696444	7BATH-031-26, BATH, (7060), -60C TO 165C, 220V 60HZ, EXTENDED TEMP. RANGE	45
7BATH-032-26	4700441	7BATH-032-26, BATH, (7081), IR AND PURGE CAVITY, -50 TO 25C, 220V 50/60HZ, MAX ACC	46,47,48,49
7BATH-033	4717204	7BATH-033-26, BATH, (7080), -70 TO 110C, 220V 60HZ, (12 x 12 x 24 DEEP)	50
7BATH-034	4724103	7BATH-034-26, BATH, (7007), -5 TO 110C, 220V 60HZ, (CUSTOM LID)	51
7BATH-035	4724847	7BATH-035-25, BATH, (7040), -40 TO 110C, 220V 50HZ, (20X25X32 TANK)	52
7BATH-036-16	4744798	7BATH-036-16, BATH, (7008), -5 TO 110°C, IR CAVITY MOUNTED IN ACCESS COVER	53
7BATH-037-25	4749900	7BATH-037-25, BATH, (7012), -10C TO 150C, 22 DEEP TANK, TUBES FRNT, 220V 50HZ	54
7BATH-038-26	4830193	7BATH-038-26, BATH, (7040), -45C TO 155C, 220V 60HZ	55
7BATH-039-26	4837725	7BATH-039-26, BATH, 7437-26, BATH, RAPID COOL DEEP, -40 TO 150C (7040 tank) 220V 60HZ	56
7BATH-040-25	4851879	7BATH-040-25, BATH, (7012), WINDOW, 220V, 50HZ	57
7BATH-041-25	4859340	7BATH-041-25, BATH, (7008 MAX), 18" DEEP TANK, 220V, 50 HZ	58
7BATH-042-25	4917598	7BATH-042-25, BATH, (7015) 23" DEEP TANK, 220V, 50 HZ	59
7BATH-043-26	4943171	7BATH-043-26 EMERSON-(CST TEMP RANGE -45 TO 155°C) 20 INCH TANK	60,61

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TCAL Customs – Sales Guide

Base Model	6022
Custom Model	6BATH-002-26
Type	Heated Only
Item #	4216567
Custom Description	Limited temp. range, Max access Opening, Overflow
Temperature Range	40°C to 160°C
Stability	±0.001 °C at 40 °C (water) ±0.003 °C at 100 °C (oil 5012) ±0.005 °C at 160 °C (oil 5017)
Uniformity	Expected to be similar to a standard 6022. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	40°C
Control Probe	PRT
Heaters	350 and 1050 watts
Access Opening	184 x 305 mm (7.25 x 12 in)
Depth	457 mm (18 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac (± 10%), 60 Hz, 5A
Current Draw (WCS)	4.6 A
Tank Size (LxWxD)	305 x 305 x 457 mm (12 x 12 x 18 in)
Volume	42.5 liters (11.2 gallons)
Weight	36 kg (80 lb.)
Size (outer dims HxWxD)	813 x 406 x 508 mm (32 x 16 x 20 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	None
Heating Rate (°C/min)	1.67 °C/min
Cooling Rate (°C/min)	NOT DEFINED
Firmware	2100
Comments:	



Order QTY_____

Customer Approval Signature_____

Date _____

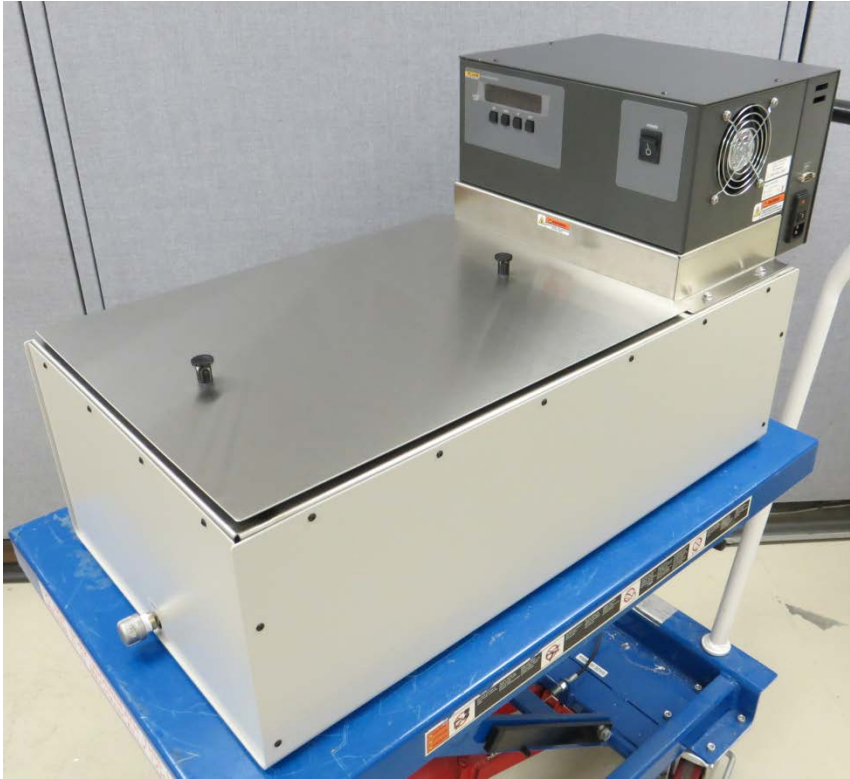
Base Model	6024
Custom Model	6BATH-003-256
Type	Heated Only
Item #	4226306
Custom Description	36" deep tank, Max Access Opening, Overflow
Temperature Range	40°C to 300°C
Stability	±0.001 °C at 40 °C (water)
	±0.003 °C at 100 °C (oil 5012)
	±0.005 °C at 300 °C (oil 5017)
Uniformity	Expected to be similar to a standard 6024. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	40°C
Control Probe	PRT
Heaters	800 and 2400 watts
Access Opening	184 x 305 mm (7.25 x 12 in)
Depth	914 mm (36 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac (± 10%), 50/60 Hz, 15A
Current Draw (WCS)	10.2 A
Tank Size (LxWxD)	305 x 305 x 914 mm (12 x 12 x 36 in)
Volume	85 liters (22.4 gallons)
Weight	54 kg (120 lb.)
Size (outer dims HxWxD)	1143 x 406 x 508 mm (45 x 16 x 20 in)
Automation	RS-232
Over Current Protection	Circuit Breakers
Refrigeration Type (grams)	None
Heating Rate (°C/min)	TBD
Cooling Rate (°C/min)	TBD
Firmware	2100
Comments:	No casters or cart provided. Cooling jacket for use with an external chiller.



Order QTY_____ Customer Approval Signature_____ Date _____

Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

Base Model	NONE
Custom Model	6BATH-005-156
Type	Heated Only
Item #	4329134
Custom Description	Heated Only, Not built off standard model but uses 6330 operation.
Temperature Range	37°C to 55°C
Stability	±0.1 °C at 37 °C (water) ±0.1 °C at 55 °C (water)
Uniformity	±0.003 °C at 37 °C (water) ±0.005 °C at 55 °C (water) (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate	
Test Point(s)	37°C, 55°C
Control Probe	Thermistor
Heaters	700 watts
Access Opening	330 x 483 mm (13 x 19 in)
Depth	203 mm (8 in)
Wetted Parts	304 Stainless Steel
Mains Power	115 V ac (± 10%), 50/60 Hz, 10A
Current Draw (WCS)	7.0 A
Tank Size (LxWxD)	648 x 330 x 203 mm (25.5 x 13 x 8 in)
Volume	44 liters (11.5 gallons)
Weight	18 kg (40 lb.)
Size (outer dims HxWxD)	439 x 394 x 780 mm (17.3 x 15.5 x 30.7 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	None
Heating Rate (°C/min)	0.24 °C/min
Cooling Rate (°C/min)	0.02 °C/min
Firmware	2100
Comments:	Has the capability for stability performance much better than the published Spec.. No drain valve (screw on cap)



Order QTY_____ Customer Approval Signature_____ Date _____

Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

Base Model	7009
Custom Model	6BATH-006-26
Type	Heated Only, HIGH HEAT
Item #	4550137
Custom Description	Heated Only, Modified range.
Temperature Range	75°C to 175°C
Stability	±0.003 °C at 60 °C (water)
	±0.008 °C at 150 °C (oil, 200.50) with NO ACCESS COVER
	±0.008 °C at 175 °C (oil, 200.50) with metal ACCESS COVER (not provided)
Uniformity	Expected to be similar to a standard 7009. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	150°C
Control Probe	PRT
Heaters	660 and 1980 watts
Access Opening	699 x 559 mm (27.55 x 22 in)
Depth	330 mm (13 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac (± 10%), 60 Hz, 15A
Current Draw (WCS)	9.4 A
Tank Size (LxWxD)	737 x 699 x 335mm (29x27.5x13.19 in)
Volume	166 liters (44 gallons)
Weight	150 kg (330 lb.)
Size (outer dims HxWxD)	1092 x 1130 x 864 mm (43 x 44.5 x 34 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	NONE
Heating Rate (°C/min)	NOT DEFINED
Cooling Rate (°C/min)	NOT DEFINED
Firmware	2100
Comments:	No refrigeration installed. ENGINEERING TESTING: Bath was tested with 208V, 60Hz. The fluid used was 200.50. At 175C with a metal access covering over the entire bath opening the bath controlled with a duty cycle of about 30%. At 150C with no access cover the bath controlled with a duty cycle of about 89%.



Customer Approval Signature_____

Order QTY_____ Date_____

Base Model	6024
Custom Model	6BATH-007-256
Type	Heated Only
Item #	TBD
Custom Description	36" deep tank, Max Access Opening, Overflow
Temperature Range	40°C to 300°C
Stability	±0.001 °C at 40 °C (water) ±0.003 °C at 100 °C (oil 5012) ±0.005 °C at 300 °C (oil 5017)
Uniformity	Expected to be similar to a standard 6024. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	40°C
Control Probe	PRT
Heaters	800 and 2400 watts
Access Opening	254 x 356 mm (10 x 14 in)
Depth	914 mm (36 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac (± 10%), 50/60 Hz, 15A
Current Draw (WCS)	10.2 A
Tank Size (LxWxD)	356 x 356 x 914 mm (14 x 14 x 36 in)
Volume	116 liters (30.5 gallons)
Weight	68 kg (150 lb.)
Size (outer dims HxWxD)	1143 x 406 x 508 mm (45 x 16 x 20 in)
Automation	RS-232
Over Current Protection	Circuit Breakers
Refrigeration Type (grams)	None
Heating Rate (°C/min)	NOT DEFINED
Cooling Rate (°C/min)	NOT DEFINED
Firmware	2100
Comments:	No casters or cart provided. Cooling jacket for use with an external chiller.



Order QTY_____ Customer Approval Signature_____ Date _____

Base Model	6024
Custom Model	4841355
Type	Heated Only
Item #	TBD
Custom Description	18" deep tank, Max Access Opening, Overflow
Temperature Range	40 °C to 175 °C
Stability	±0.003 °C at 40 °C (water)
	± 0.005 °C at 100 (oil 5014)
	±0.008 °C at 150°C (oil 5014)
Uniformity	Expected to be similar to a standard 6024. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	100°C and 150°C
Control Probe	PRT
Heaters	350 and 1050 Watts
Access Opening	254 mm x 356 mm (10 x 14 in)
Depth	460 mm (18 in)
Wetted Parts	304 Stainless Steel
Mains Power	208-230 VAC (± 10%), 60 Hz
Current Draw (WCS)	5 A
Tank Size (LxWxD)	356 x 356 x 460 mm (14 x 14 x 18 in)
Volume	54 liters (14.3 gallons)
Weight	68 kg (150 lb.)
Size (outer dims HxWxD)	699 x 483 x 584 mm
	(31.5 x 19 x 23 in) Approximation with out cart
Automation	RS-232 and IEEE
Over Current Protection	Fuses, 8A FAST
Refrigeration Type (grams)	None
Heating Rate (°C/min)	NOT DEFINED
Cooling Rate (°C/min)	NA
Firmware	2100
Comments:	Custom rack for PCA's. Design determined and signed and approved by end user. Customer has ordered a cart 2072-2450. IEEE will be supplied.

Order QTY_____ Customer Approval Signature_____

DATE_____

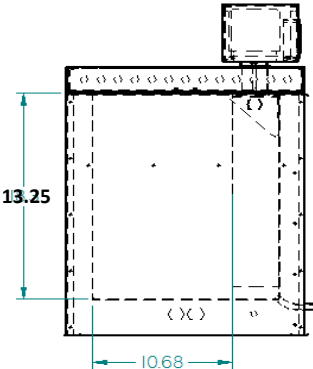
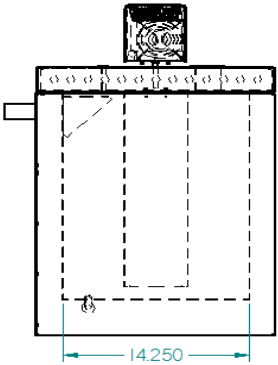
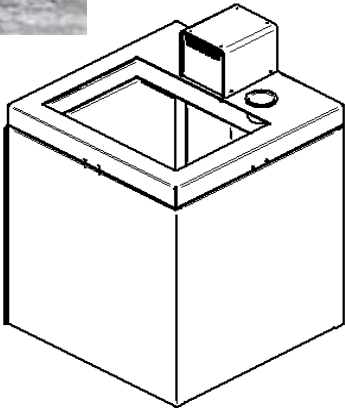
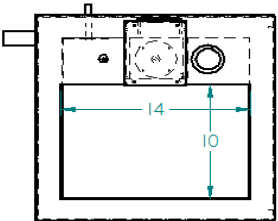


Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

Base Model	6024
Custom Model	6BATH-010-256
Type	Heated Only
Item #	4907694
Custom Description	Max access Opening, Overflow, Stainless steel external construction. In tank heat exchanger to maximize cooling using shop air.
Temperature Range	40°C to 150°C
Stability	±0.002 °C at 40 °C (water) ±0.005 °C at 100 °C (oil 5012) ±0.008 °C at 150 °C (oil 5017)
Uniformity	Expected to be similar to a standard 6024. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	100°C, 132°C Using Dow 200.50 Silicone oil.
Control Probe	PRT
Heaters	350 and 1050 watts
Access Opening	254 x 356 mm (10 x 14 in)
Depth	337 mm (13.25 in)
Wetted Parts	304 Stainless Steel
Mains Power	208-220 VAC(± 10%), 50/60 Hz, 10A
Current Draw (WCS)	9 A
Tank Size (LxWxD)	362 x 362 x 337 mm (14.25 x 14.25 x 13.25 in)
Volume	42 liters (11.2 gallons)
Weight	36 kg (80 lb.) *Not including cart.
Size (outer dims HxWxD)	699 x 483 x 584 mm (27.5 x 19 x 23 in) *Mainframe
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	None
Heating Rate (°C/min)	NOT DEFINED
Cooling Rate (°C/min)	TBD using in tank heat exchanger.
Firmware	2100
Comments:	



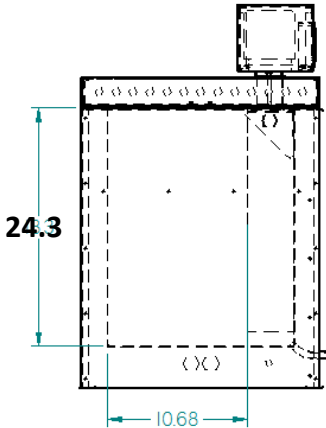
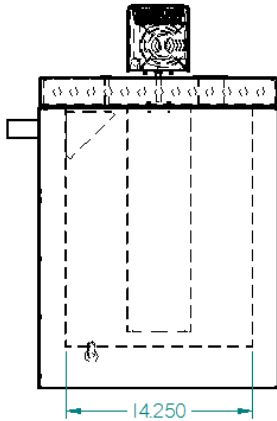
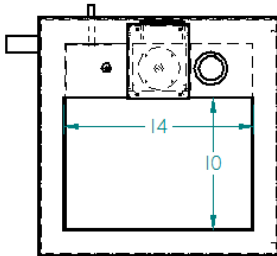
****Cart will be made from stainless steel**



Order QTY_____ Customer Approval Signature_____ Date _____

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Base Model	6024
Custom Model	6BATH-011-256
Type	Heated Only
Item #	4945888
Custom Description	24" deep tank, Max access Opening, Overflow
Temperature Range	40°C to 300°C
Stability	±0.001 °C at 40 °C (water)
	±0.003 °C at 100 °C (oil 5012)
	±0.005 °C at 175 °C (oil 5017)
Uniformity	Expected to be similar to a standard 6024. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	40°C (Water) 175 (Silicone oil)
Control Probe	PRT
Heaters	350 and 1050 watts
Access Opening	254 x 356 mm (10 x 14 in)
Depth	617 mm (24.3 in)
Wetted Parts	304 Stainless Steel
Mains Power	220 VAC (± 10%), 50/60 Hz, 10A
Current Draw (WCS)	9 A
Tank Size (LxWxD)	362 x 362 x 617 mm (14.25 x 14.25 x 24.3 in)
Volume	Approx. 77.5 liters (20.5 gallons)
Weight	Approx. 43 kg (95 lb.)
Size (outer dims HxWxD)	813 x 406 x 508 mm (38.5 x 20 x 23 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	None
Heating Rate (°C/min)	-NOT DEFINED
Cooling Rate (°C/min)	-NOT DEFINED
Firmware	2100
Comments:	*Cart is available for purchase as accessory item. Model 2072-2450.



Order QTY_____ Customer Approval Signature_____ Date _____

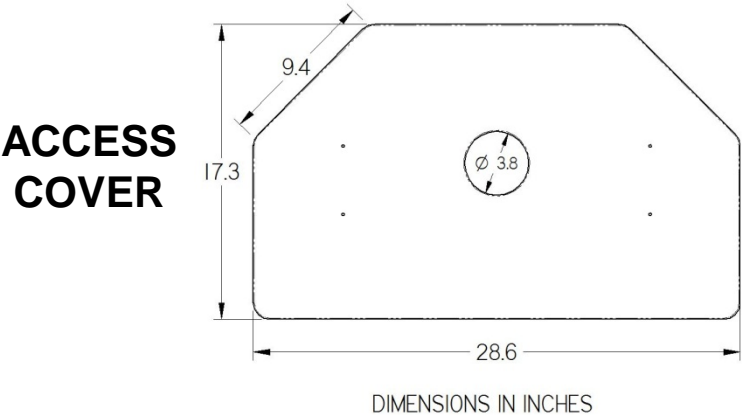
Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

Base Model	6050H
Custom Model	6BATH-012-256 (TBD)
Type	Heated Only
Item #	
Custom Description	Stir motor box will be turned 90 degrees. Stir motor box enclosure will be raised 2" higher than standard bath. Longer stir shaft. A variable AC supply will be used to allow for variable speed stir motor operation.
Temperature Range	180 °C to 550 °C
Stability	±0.002 °C at 200 °C (salt) ±0.004 °C at 300 °C (salt) ±0.008 °C at 550 °C (salt)
Uniformity	±0.005 °C at 200 °C (salt) ±0.020 °C at 550 °C (salt)
Minimum required Certificate	
Test Point(s)	40°C using water
Control Probe	PRT
Heaters	400, 1200, and 2000 Watts
Access Opening	127 x 254 mm (5 x 10 in)
Depth	305 mm (12")
Wetted Parts	304 Stainless Steel
Mains Power	208-230 VAC (±10 %), 50/60 Hz, 10 A
Current Draw (WCS)	9 A
Tank Size (LxWxD)	305 x 305 x 305 mm (12 x 12 x 12 in)
Volume	27 liters (7.1 gal), requires 50 kg (112 lb) of bath salt
Weight	82 kg (180 lb.)
Size (outer dims HxWxD)	724 x 518 x 622 mm (28.5 x 20.4 x 24.5 in)
Automation	Interface-it software and RS-232 computer interface are available for setting bath temperature via remote computer. For IEEE-488, add the 2001-IEEE to the automation package.
Over Current Protection	Fuses
Firmware	2100
Comments:	



Order QTY_____ Customer Approval Signature_____ Date _____

Base Model	4029
Custom Model	4029-NC-26
Type	Refrigerated
Item #	3974609
Custom Description	All Glass tank
Temperature Range	10°C to 60°C
Stability	±0.0007 °C at 25°C (water)
	±0.002 °C at 25°C (water) (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Uniformity	
Minimum required Certificate Test Point(s)	25°C
Control Probe	Thermistor (Inconel, Handmade, 17")
Heaters	1000 and 2000 watts
Access Opening	See Sketch (~trapazoidal)
Depth	457 mm (18 in)
Wetted Parts	304 Stainless Steel, Glass, Plastic
Mains Power	230 V ac (± 10%), 50 Hz, 20A
Current Draw (WCS)	12.4 A
Tank Size (LxWxD)	876 x 617 x 457 mm (34.5 x 24.3 x 18 in)
Volume	247 liters (65 gallons)
Weight	240 kg (500 lb.)
Size (outer dims HxWxD)	1041 x 889 x 635 mm (41 x 35 x 25 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-134a
Heating Rate (°C/min)	0.07 °C/min
Cooling Rate (°C/min)	0.01 °C/min
Firmware	2100
Comments:	



Order QTY_____ Customer Approval Signature_____ Date _____

Base Model	7341
Custom Model	7341-26
Type	Refrigerated
Item #	4104623
Custom Description	Making 60hz available, new compressor
Temperature Range	-45°C to 150°C
Stability	±0.006 °C at -45°C (ethanol) ±0.006 °C at 25 °C (water) ±0.008 °C at 150 °C (oil 5012)
Uniformity	Expected to be similar to a standard 7341. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	-40°C, -20°C, 25°C, scan from 25°C to -40°C
Control Probe	PRT
Heaters	700W
Access Opening	120 x 172 mm (4.7 x 6.8 in)
Depth	457 mm (18 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac (± 10%), 60 Hz, 10A
Current Draw (WCS)	6.3 A
Tank Size (LxWxD)	229 x 171 x 476 mm (9x 6.75x 18.74 in)
Volume	16 liters (4 gallons)
Weight	68 kg (150 lb.)
Size (outer dims HxWxD)	1067 x 356 x 788 mm (42 x 14 x 31 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-507
Heating Rate (°C/min)	NOT TESTED
Cooling Rate (°C/min)	0.5 °C/min
Firmware	Modified 7341 (7341c)
Comments:	Unit stable with refrigeration ON up to 45°C



Order QTY _____ Customer Approval Signature _____ Date _____

Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

Base Model	7437
Custom Model	7437-26
Type	Refrigerated
Item #	4290363
Custom Description	Faster Cooling rate, 7037
Temperature Range	-40°C to 150°C
Stability	±0.002 °C at -40 °C (ethanol) ±0.002 °C at -20 °C (ethanol) ±0.002 °C at 25 °C (ethanol)
Uniformity	Expected to be similar to a standard 7037. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	-40°C, -20°C, 25°C, cooling scan from 25°C to -40°C.
Control Probe	PRT
Heaters	500 and 1000 watts
Access Opening	305 x 184 mm (12 x 7.25 in)
Depth	457 mm (18 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac (± 10%), 60 Hz, 15A
Current Draw (WCS)	8.4 A
Tank Size (LxWxD)	305 x 305 x 457 mm (12 x 12 x 18 in)
Volume	42.5 liters (11.2 gallons)
Weight	159 kg (350 lb.)
Size (outer dims HxWxD)	1320 x 775 x 483 mm (52 x 30.5 x 19 in)
Automation	RS-232
Over Current Protection	Circuit Breakers
Refrigeration Type (grams)	R-507
Heating Rate (°C/min)	0.40 °C/min
Cooling Rate (°C/min)	0.27 °C/min (240 min scan from 25°C to -40°C)
Firmware	7437
Comments:	Cooling may be turned on up to 60°C



Order QTY_____ Customer Approval Signature_____ Date _____

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Base Model	7437
Custom Model	7437-25
Type	Refrigerated
Item #	4739807
Custom Description	Faster Cooling rate, 7037
Temperature Range	-40°C to 150°C
Stability	±0.002 °C at -40 °C (ethanol) ±0.002 °C at -20 °C (ethanol) ±0.002 °C at 25 °C (ethanol)
Uniformity	Expected to be similar to a standard 7037. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	-40°C, -20°C, 25°C, cooling scan from 25°C to -40°C.
Control Probe	PRT
Heaters	500 and 1000 watts
Access Opening	305 x 184 mm (12 x 7.25 in)
Depth	457 mm (18 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac (± 10%), 50 Hz, 15A
Current Draw (WCS)	8.4 A
Tank Size (LxWxD)	305 x 305 x 457 mm (12 x 12 x 18 in)
Volume	42.5 liters (11.2 gallons)
Weight	159 kg (350 lb.)
Size (outer dims HxWxD)	1320 x 775 x 483 mm (52 x 30.5 x 19 in)
Automation	RS-232
Over Current Protection	Circuit Breakers
Refrigeration Type (grams)	R-507
Heating Rate (°C/min)	0.40 °C/min
Cooling Rate (°C/min)	0.27 °C/min (240 min scan from 25°C to -40°C)
Firmware	7437
Comments:	Cooling may be turned on up to 60°C



Order QTY_____ Customer Approval Signature_____ Date _____

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Base Model	7009
Custom Model	7BATH-001-26
Type	Refrigerated
Item #	4081629
Custom Description	Extended range, Overflow
Temperature Range	-30°C to 60°C
Stability	±0.001 °C at -30 °C (ethanol) ±0.003 °C at 60 °C (water)
Uniformity	Typical expected performance. Not verified by the factory. Optional testing available at additional cost.
Minimum required Certificate Test Point(s)	-30°C
Control Probe	PRT
Heaters	1000 and 2000 watts
Access Opening	699 x 559 mm (27.55 x 22 in)
Depth	330 mm (13 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac (± 10%), 60 Hz, 20A
Current Draw (WCS)	11.2 A
Tank Size (LxWxD)	737 x 699 x 335 mm (29 x 27.5 x 13.19 in)
Volume	166 liters (44 gallons)
Weight	150 kg (330 lb.)
Size (outer dims HxWxD)	1092 x 1130 x 864 mm (43 x 44.5 x 34 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-507
Heating Rate (°C/min)	0.36 °C/min
Cooling Rate (°C/min)	0.07 °C/min
Firmware	2100
Comments:	



Order QTY_____ Customer Approval Signature_____ Date _____

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Base Model	7011
Custom Model	7BATH-002-25
Type	Refrigerated
Item #	4090224
Custom Description	Shallow tank, Max Access
Temperature Range	-10°C to 110°C
Stability	±0.0008 °C at 0 °C (ethanol) ±0.0008 °C at 25 °C (water) ±0.003 °C at 110 °C (oil 5012)
Uniformity	Expected to be similar to a standard 7011. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	25°C
Control Probe	Thermistor
Heaters	500 and 1000 watts
Access Opening	305 x 184 mm (12 x 7.25 in)
Depth	203 mm (8 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac (± 10%), 50 Hz, 7A
Current Draw (WCS)	6.8 A
Tank Size (LxWxD)	305 x 305 x 203mm (12x12x8 in)
Volume	19 liters (5 gallons)
Weight	57 kg (125 lb.)
Size (outer dims HxWxD)	559 x 685 x 401 mm (22 x 27 x 15.8 in)
Automation	None
Over Current Protection	Fuses
Refrigeration Type (grams)	R-134a
Heating Rate (°C/min)	
Cooling Rate (°C/min)	0.19 °C/min
Firmware	2100
Comments:	Shallower tank to increase scan speed by 30%.



Order QTY_____ Customer Approval Signature_____ Date _____

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Base Model	7009
Custom Model	7BATH-005-26
Type	<i>Heated Only</i>
Item #	4121541
Custom Description	Heated Only, Modified range.
Temperature Range	75°C to 175°C
Stability	±0.003 °C at 60 °C (water)
	±0.008 °C at 150 °C (oil)
	Expected to be similar to a standard 7009. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Uniformity	
Minimum required Certificate Test Point(s)	60°C
Control Probe	PRT
Heaters	500 and 1000 watts
Access Opening	699 x 559 mm (27.55 x 22 in)
Depth	330 mm (13 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac (± 10%), 60 Hz, 15A
Current Draw (WCS)	7.5 A
Tank Size (LxWxD)	737 x 699 x 335mm (29x27.5x13.19 in)
Volume	166 liters (44 gallons)
Weight	150 kg (330 lb.)
Size (outer dims HxWxD)	1092 x 1130 x 864 mm (43 x 44.5 x 34 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	NONE
Heating Rate (°C/min)	NOT DETERMINED
Cooling Rate (°C/min)	NOT DETERMINED
Firmware	2100
Comments:	No refrigeration installed.



Order QTY _____ Customer Approval Signature _____ Date _____

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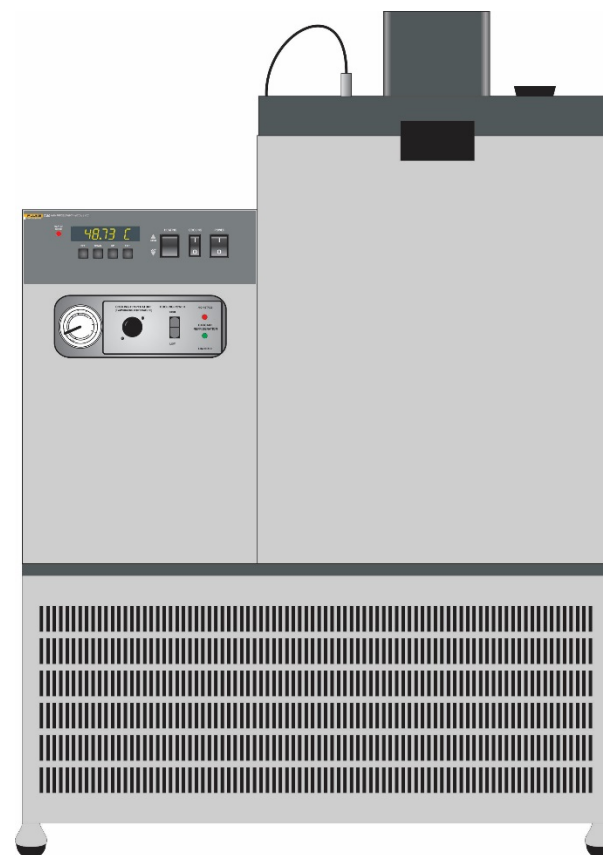
Base Model	7341
Custom Model	7BATH-008-25
Type	Refrigerated
Item #	4129750
Custom Description	Modified temp. range
Temperature Range	-30°C to 200°C
Stability	±0.006 °C at -45°C (ethanol) ±0.006 °C at 45 °C (water) ±0.010 °C at 200 °C (oil 5013)
Uniformity	Expected to be similar to a standard 7341. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	-45°C, 40°C, 200°C
Control Probe	PRT
Heaters	700W
Access Opening	120 x 172 mm (4.7 x 6.8 in)
Depth	457 mm (18 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac (± 10%), 50 Hz, 10A
Current Draw (WCS)	5.7 A
Tank Size (LxWxD)	229 x 171 x 476 mm (9x 6.75x 18.74 in)
Volume	16 liters (4 gallons)
Weight	68 kg (150 lb.)
Size (outer dims HxWxD)	1067 x 356 x 788 mm (42 x 14 x 31 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-507
Heating Rate (°C/min)	NOT TESTED
Cooling Rate (°C/min)	0.48 °C/min
Firmware	Modified 7341 (7341c)
Comments:	



Order QTY_____ Customer Approval Signature_____ Date _____

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Base Model	7080
Custom Model	7BATH-009-26
Type	Refrigerated
Item #	4216559
Custom Description	Stretched tank, Modified temp. Range, Overflow.
Temperature Range	-80°C to 100°C
Stability	±0.003 °C at -80 °C (methanol) ±0.002 °C at 20 °C (water) ±0.003 °C at 100 °C (oil 5012)
Uniformity	Expected to be similar to a standard 7080. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	-80°C, -20°C
Control Probe	PRT
Heaters	500 and 1000 watts
Access Opening	127 x 254mm (5 x 10 in)
Depth	457 mm (18 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac (± 10%), 60 Hz, 13A
Current Draw (WCS)	12.6 A
Tank Size (LxWxD)	305 x 305 x 457 mm (12 x 12 x 18 in)
Volume	42.5 liters (11.2 gallons)
Weight	159 kg (350 lb.)
Size (outer dims HxWxD)	1320 x 775 x 483 mm (52 x 30.5 x 19 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	1st = R-507, 2nd = R-508B
Heating Rate (°C/min)	NOT DETERMINED
Cooling Rate (°C/min)	0.16 °C/min
Firmware	2100
Comments:	



Order QTY_____ Customer Approval Signature_____ Date _____

Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

Base Model	7437
Custom Model	7BATH-010-26
Type	Refrigerated
Item #	4236396
Custom Description	Faster Cooling rate, 7037
Temperature Range	-30°C to 172°C
Stability	±0.002 °C at -30 °C (ethanol) ±0.0015 °C at 25 °C (water)
Uniformity	Expected to be similar to a standard 7437. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	-40°C, -20°C, 25°C, cooling scan from 25°C to -40°C.
Control Probe	PRT
Heaters	500 and 1000 watts
Access Opening	254 x 356 mm (10 x 14 in)
Depth	457 mm (18 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac (± 10%), 60 Hz, 15A
Current Draw (WCS)	8.4 A
Tank Size (LxWxD)	356 x 356 x 457 mm (14 x 14 x 18 in)
Volume	58 liters (15 gallons)
Weight	159 kg (350 lb.)
Size (outer dims HxWxD)	1320 x 775 x 483 mm (52 x 30.5 x 19 in)
Automation	RS-232
Over Current Protection	Circuit Breakers
Refrigeration Type (grams)	R-507
Heating Rate (°C/min)	0.40 °C/min
Cooling Rate (°C/min)	0.17 °C/min
Firmware	7437
Comments:	



Order QTY _____ Customer Approval Signature _____ Date _____

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Base Model	7437
Custom Model	7BATH-010-25
Type	Refrigerated
Item #	TBD
Custom Description	Faster Cooling rate, 7037
Temperature Range	-30°C to 172°C
Stability	±0.002 °C at -30 °C (ethanol) ±0.0015 °C at 25 °C (water)
Uniformity	Expected to be similar to a standard 7437. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	-40°C, -20°C, 25°C, cooling scan from 25°C to -40°C.
Control Probe	PRT
Heaters	500 and 1000 watts
Access Opening	254 x 356 mm (10 x 14 in)
Depth	457 mm (18 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac (± 10%), 50 Hz, 15A
Current Draw (WCS)	8.4 A
Tank Size (LxWxD)	356 x 356 x 457 mm (14 x 14 x 18 in)
Volume	58 liters (15 gallons)
Weight	159 kg (350 lb.)
Size (outer dims HxWxD)	1320 x 775 x 483 mm (52 x 30.5 x 19 in)
Automation	RS-232
Over Current Protection	Circuit Breakers
Refrigeration Type (grams)	R-507
Heating Rate (°C/min)	0.40 °C/min
Cooling Rate (°C/min)	0.17 °C/min
Firmware	7437
Comments:	



Order QTY_____ Customer Approval Signature_____ Date _____

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Base Model	7037
Custom Model	7BATH-012-26
Type	Refrigerated
Item #	4316804
Custom Description	Extened temp. range
Temperature Range	-40°C to 140°C
Stability	±0.002 °C at -40 °C (ethanol) ±0.0015 °C at 25 °C (water) ±0.003 °C at 100 °C (water)
Uniformity	Expected to be similar to a standard 7037. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	-40°C
Control Probe	PRT
Heaters	500 and 1000 watts
Access Opening	305 x 184 mm (12 x 7.25 in)
Depth	457 mm (18 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac (± 10%), 60 Hz, 9A
Current Draw (WCS)	8.4 A
Tank Size (LxWxD)	356 x 356 x 457 mm (14 x 14 x 18 in)
Volume	58 liters (15 gallons)
Weight	68 kg (150 lb.)
Size (outer dims HxWxD)	775 x 768 x 483 mm (30.5 x 30.25 x 19 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-507
Heating Rate (°C/min)	NOT DETERMINED
Cooling Rate (°C/min)	0.10 °C/min
Firmware	2100
Comments:	



Order QTY_____ Customer Approval Signature_____ Date _____

Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

Base Model	7100
Custom Model	7BATH-013-25
Type	Refrigerated
Item #	4316769
Custom Description	Hermetic compressors
Temperature Range	-100°C to 110°C
Stability	±0.009 °C at -100 °C (methanol) ±0.009 °C at -40 °C (methanol) ±0.009 °C at 25 °C (water) ±0.009 °C at 100 °C (oil 5012)
Uniformity	Expected to be similar to a standard 7100. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	-20°C, -35°C, -40°C, -100°C
Control Probe	PRT
Heaters	350W and 700W
Access Opening	98 mm diameter (3.8 in)
Depth	406 mm (16 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac (± 10%), 50 Hz, 12A
Current Draw (WCS)	10.2
Tank Size (LxWxD)	152 x 305 x 406 mm (6 x 12 x 16 in)
Volume	18 liters (4.8 gallons)
Weight	182 kg (400 lb.)
Size (outer dims HxWxD)	1270 x 813 x 483 mm (50 x 32 x 19 in)
Automation	RS-232
Over Current Protection	Circuit Breakers
Refrigeration Type (grams)	1st = R-507, 2nd = Propane/Ethylene
Heating Rate (°C/min)	0.93 °C/min
Cooling Rate (°C/min)	0.20 °C/min
Firmware	2100
Comments:	International Quotes based on refrigerant charging arrangement: A) Ship by sea pre-charged B) Local qualified Fluke Service Team charges on site. C) Fluke Rep. travels to site to charge.



Order QTY_____ Customer Approval Signature_____ Date _____

Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

Base Model	7100
Custom Model	7BATH-013-26
Type	Refrigerated
Item #	4488058
Custom Description	Hermetic compressors
Temperature Range	-100°C to 110°C
Stability	±0.009 °C at -100 °C (methanol/ethanol) ±0.009 °C at -40 °C (methanol/ethanol) ±0.009 °C at 25 °C (water) ±0.009 °C at 100 °C (oil 5012)
Uniformity	Expected to be similar to a standard 7100. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	-25°C, -40°C, -100°C
Control Probe	PRT
Heaters	350W and 700W
Access Opening	98 mm diameter (3.8 in)
Depth	406 mm (16 in)
Wetted Parts	304 Stainless Steel
Mains Power	208-230 V ac (± 10%), 60 Hz, 12A
Current Draw (WCS)	10.0 A
Tank Size (LxWxD)	152 x 305 x 406 mm (6 x 12 x 16 in)
Volume	18 liters (4.8 gallons)
Weight	182 kg (400 lb.)
Size (outer dims HxWxD)	1270 x 813 x 483 mm (50 x 32 x 19 in)
Automation	RS-232
Over Current Protection	Circuit Breakers
Refrigeration Type (grams)	1st = R-507, 2nd = Propane/Ethylene
Heating Rate (°C/min)	0.93 °C/min
Cooling Rate (°C/min)	0.20 °C/min
Firmware	2100
Comments:	Unit can be shipped domestically via freight without removing the charge.



Order QTY_____ Customer Approval Signature_____ Date _____

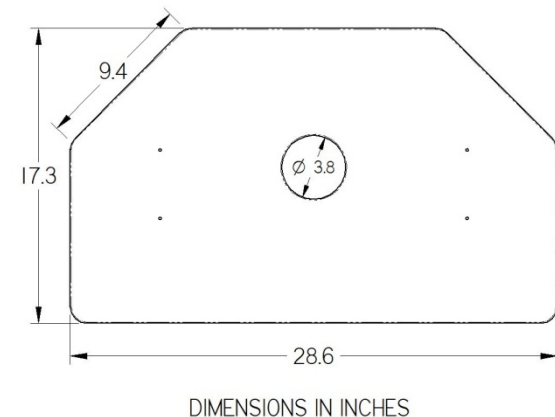
Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

7BATH-015-25 (Custom 4-Window Bath, extended tank depth) FLUKE®

Base Model	4029
Custom Model	7BATH-015-25
Type	Refrigerated
Item #	4323677
Custom Description	All glass tank
Temperature Range	18°C to 22°C
Stability	±0.0007 °C at 25°C (water)
Uniformity	Expected to be similar to a standard 7015. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	18°C, 22°C
Control Probe	Thermistor (hand made 19")
Heaters	1000 and 2000 watts
Access Opening	See Sketch (~trapazoidal)
Depth	457 mm (18 in)
Wetted Parts	304 Stainless Steel, Glass, Plastic
Mains Power	230 V ac (± 10%), 50 Hz, 20A
Current Draw (WCS)	12.0 A
Tank Size (LxWxD)	876 x 617 x 596 mm (34.5 x 24.3 x 23.5 in)
Volume	247 liters (65 gallons)
Weight	272 kg (600 lb.)
Size (outer dims HxWxD)	1041 x 889 x 1201 mm (41 x 35 x 47.3 in)
Automation	RS-232
Over Current Protection	Circuit Breakers
Refrigeration Type (grams)	R-134a
Heating Rate (°C/min)	0.17 °C/min
Cooling Rate (°C/min)	0.03 °C/min
Firmware	2100
Comments:	Black plastic Access Cover, Removable outer tank covers with 10"x10" window thru front and back cover.



**ACCESS
COVER**



Order QTY_____ Customer Approval Signature_____ Date _____

Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

Base Model	7012 / 7037
Custom Model	7BATH-016-16
Type	Refrigerated
Item #	4352866
Custom Description	Window in front, Overflow.
Temperature Range	10°C to 30°C
Stability	±0.0008 °C at 0 °C (ethanol) ±0.001 °C at 30 °C (water)
Uniformity	Expected to be similar to a standard 7012. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	10°C, 25°C, 30°C
Control Probe	Thermistor
Heaters	500 and 1000 watts
Access Opening	162 x 292 mm (6.38 x 11.5 in)
Depth	457 mm (18 in)
Wetted Parts	304 Stainless Steel
Mains Power	115 V ac(± 10%), 60 Hz, 16A
Current Draw (WCS)	15.0 A
Tank Size (LxWxD)	305 x 305 x 457 mm (12 x 12 x 18 in)
Volume	42.5 liters (11.2 gallons)
Weight	68 kg (150 lb.)
Size (outer dims HxWxD)	775 x 768 x 483 mm (30.5 x 30.25 x 19 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-134a
Heating Rate (°C/min)	NOT DETERMINED
Cooling Rate (°C/min)	0.15 °C/min
Firmware	2100
Comments:	Can order a 2073 cart separately: item#1649917



Order QTY_____ Customer Approval Signature_____ Date _____

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Base Model	7381
Custom Model	7BATH-017-25
Type	Refrigerated
Item #	4331322
Custom Description	Extended range
Temperature Range	-82°C to 150°C
Stability	±0.006 °C at -80 °C (ethanol) ±0.005 °C at 0 °C (ethanol) ±0.005 °C at 100 °C (oil 5012)
Uniformity	Expected to be similar to a standard 7381. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	-82°C, -80°C, -40°C, 25°C
Control Probe	PRT
Heaters	700 W
Access Opening	120 x 172 mm (4.7 x 6.8 in)
Depth	457 mm (18 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac(± 10%), 50 Hz, 10A
Current Draw (WCS)	8.5 A
Tank Size (LxWxD)	
Volume	15.9 liters (4.2 gallons)
Weight	91 kg (200 lb.)
Size (outer dims HxWxD)	1067 x 356 x 788 mm (42 x 14 x 31 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	1st = R-507, 2nd = R-508B
Heating Rate (°C/min)	NOT TESTED
Cooling Rate (°C/min)	0.50 °C/min
Firmware	Modified 7381 (7381c)
Comments:	



Order QTY_____ Customer Approval Signature_____ Date _____

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Base Model	7011
Custom Model	7BATH-018-25
Type	Refrigerated
Item #	4090224
Custom Description	Added RS-232
Temperature Range	-10°C to 110°C
Stability	±0.0008 °C at 0 °C (ethanol) ±0.0008 °C at 25 °C (water) ±0.003 °C at 110 °C (oil 5012)
Uniformity	Expected to be similar to a standard 7011. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	25°C
Control Probe	Thermistor
Heaters	500 and 1000 watts
Access Opening	305 x 184 mm (12 x 7.25 in)
Depth	305 mm (12 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac(± 10%), 50 Hz, 7A
Current Draw (WCS)	6.8 A
Tank Size (LxWxD)	305 x 305 x 305mm (12x12x12 in)
Volume	28.3 liters (7.5 gallons)
Weight	57 kg (125 lb.)
Size (outer dims HxWxD)	559 x 685 x 401 mm (22 x 27 x 15.8 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-134a
Heating Rate (°C/min)	NOT TESTED
Cooling Rate (°C/min)	0.15 °C/min
Firmware	2100
Comments:	RS-232 will only change temps, there is no peripheral control.



Order QTY_____ Customer Approval Signature_____ Date _____

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Base Model	7051A
Custom Model	7BATH-019-25
Type	Refrigerated
Item #	4380513
Custom Description	Stretched tank, Salt Water
Temperature Range	-5°C to 40°C
Stability	±0.020 °C throughout range (water)
Uniformity	Expected to be similar to a standard 7051A. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	25°C
Control Probe	Thermistor (Inconel, handmade, 20")
Heaters	LO = 500W, HI = 1000W, BOOST = 2000W
Access Opening	400mm x 584mm
Depth	800mm
Wetted Parts	Titanium, Plastic, Inconel
Mains Power	230 V ac(± 10%), 50 Hz, 25A, 4600W
Current Draw (WCS)	17.8 A
Tank Size (LxWxD)	578mm x 601mm x 800mm (23 x 24 x 32 in)
Volume	278 liters (73 gallons)
Weight	272 kg (600 lb.)
Size (outer dims HxWxD)	1370 x 1575 x 813 mm (54 x 62 x 32 in)
Automation	RS-232, IEEE-488
Over Current Protection	Fuses
Refrigeration Type (grams)	Control Cooling = R-134a, Boost Cooling = 134a
Heating Rate (°C/min)	0.2 °C/min
Cooling Rate (°C/min)	0.4 °C/min
Firmware	7051A
Comments:	Inlet & Outlet ports for exchanging fluid thru tank wall (plastic valves).



Order QTY_____ Customer Approval Signature_____ Date _____

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Base Model	7012 / 7037
Custom Model	7BATH-020-26
Type	Refrigerated
Item #	4384553
Custom Description	36" deep tank, Max Access Opening, Overflow
Temperature Range	40°C to 160°C
Stability	±0.005 °C throughout range (oil 5014)
Uniformity	Expected to be similar to a standard 7012. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	40°C, 160°C.
Control Probe	PRT
Heaters	750 and 3000 watts
Access Opening	184 x 305 mm (7.25 x 12 in)
Depth	914 mm (36 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac(± 10%), 50/60 Hz, 15A, 3400W
Current Draw (WCS)	14.25 A
Tank Size (LxWxD)	305 x 305 x 914 mm (12 x 12 x 36 in)
Volume	85 liters (22.4 gallons)
Weight	113 kg (250 lb.)
Size (outer dims HxWxD)	1245 x 711 x 940 mm (49 x 28 x 37 in)
Automation	RS-232
Over Current Protection	Circuit Breakers
Refrigeration Type (grams)	R-134a
Heating Rate (°C/min)	1.0 (°C/min)
Cooling Rate (°C/min)	0.31 (°C/min)
Firmware	Modified 7321 (7BATH-020, ver 1.14c)
Comments:	No Casters or Cart provided. Special design incorporates a de-super heat coil to allow the refrigeration system to be on at temperatures up to 162°C



Order QTY_____ Customer Approval Signature_____ Date _____

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Base Model	7012 / 7037
Custom Model	7BATH-021-25
Type	Refrigerated
Item #	4419521
Custom Description	Window in front, Overflow.
Temperature Range	-5°C to 80°C
Stability	±0.0008 °C at 0 °C (ethanol) ±0.001 °C at 30 °C (water)
Uniformity	Expected to be similar to a standard 7012. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	-5°C, 25°C.
Control Probe	Thermistor
Heaters	500 and 1000 watts
Access Opening	162 x 292 mm (6.38 x 11.5 in)
Depth	457 mm (18 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac(± 10%), 50 Hz, 10A
Current Draw (WCS)	8.0 A
Tank Size (LxWxD)	305 x 305 x 457 mm (12 x 12 x 18 in)
Volume	42.5 liters (11.2 gallons)
Weight	68 kg (150 lb.)
Size (outer dims HxWxD)	775 x 768 x 483 mm (30.5 x 30.25 x 19 in)
Automation	RS-232
Over Current Protection	Circuit Breakers
Refrigeration Type (grams)	R-134a
Heating Rate (°C/min)	NOT DETERMINED
Cooling Rate (°C/min)	0.15 °C/min
Firmware	2100
Comments:	Can order a 2073 cart separately: item#1649917



Order QTY_____ Customer Approval Signature_____ Date _____

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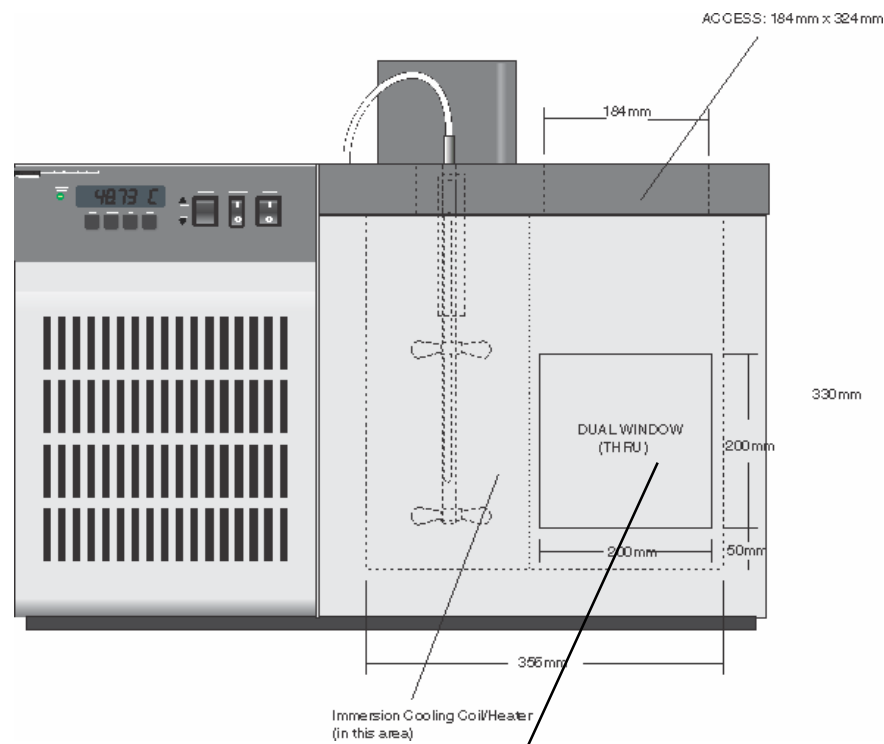
Base Model	7015
Custom Model	7BATH-022-25
Type	Refrigerated
Item #	4468164
Custom Description	Extended temp. range
Temperature Range	0°C to 110°C
Stability	±0.001 °C at 25°C (oil 5014) ±0.002 °C at 100°C (oil 5014) ±0.003 °C at 110°C (oil 5014)
Uniformity	Expected to be similar to a standard 7015. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	
Control Probe	PRT
Heaters	500 and 1000 watts
Access Opening	699 x 279 mm (27.5 x 11 in)
Depth	330 mm (13 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac(± 10%), 50/60 Hz, 8A
Current Draw (WCS)	7.5 A
Tank Size (LxWxD)	702 x 427 x 328 mm (27.63 x 16.8 x 12.94 in)
Volume	98 liters (26 gallons)
Weight	141 kg (310 lb.)
Size (outer dims HxWxD)	1219 x 1118 x 559 mm (48 x 44 x 22 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-134a
Heating Rate (°C/min)	0.40 (°C/min)
Cooling Rate (°C/min)	0.03 (°C/min)
Firmware	2100
Comments:	Probe change from the standard 7015 to a PRT is necessary for optimal performance above 100°C



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Base Model	7041
Custom Model	7040-25-7BATH
Type	Refrigerated
Item #	4594961
Custom Description	Window in front & back, Overflow, method to purge window
Temperature Range	-40°C to 100°C
Stability	±0.004 °C at -40 °C (ethanol)
Uniformity	Expected to be similar to a standard 7041. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	-40°C, 100°C
Control Probe	PRT
Heaters	350W and 700W
Access Opening	184 x 324 mm (7.25 x 12.75 in)
Depth	330 mm (13 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac(± 10%), 50 Hz, 9A
Current Draw (WCS)	8.0 A
Tank Size (LxWxD)	356 x 356 x 330 mm (14 x 14 x 13 in)
Volume	42 liters (11.2 gallons)
Weight	63.5 kg (140 lb.)
Size (outer dims HxWxD)	622 x 768 x 483 mm (24.5 x 30.2 x 19 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-507
Heating Rate (°C/min)	NOT DETERMINED
Cooling Rate (°C/min)	NOT DETERMINED
Firmware	2100
Comments:	This bath uses immersion cooling coils and heaters to ensure sufficient cooling with the window. Heating rate is expected to be approximately 30% slower than a standard 7041 bath.



- Double Pane glass windows on front and back of the bath.
 - Purge ports between the Double Pane windows.
 - Additional Removable Purge boxes on the front and back of the bath with a glass face and purge ports.
- DISCLAIMER:** Fluke will provide and test the purge concept with the goal of no frost build-up on the windows. There may be frost accumulation in the corners of the windows, after extended periods of time at low temps., or in different humidity environments and test environments.

Purge Settings: A dry-air purge system will be used that dries the air to -40°C dew point. Primary Purge = 10 LPM. Secondary Purge = 15 LPM.

Order QTY _____ Customer Approval Signature _____ Date _____

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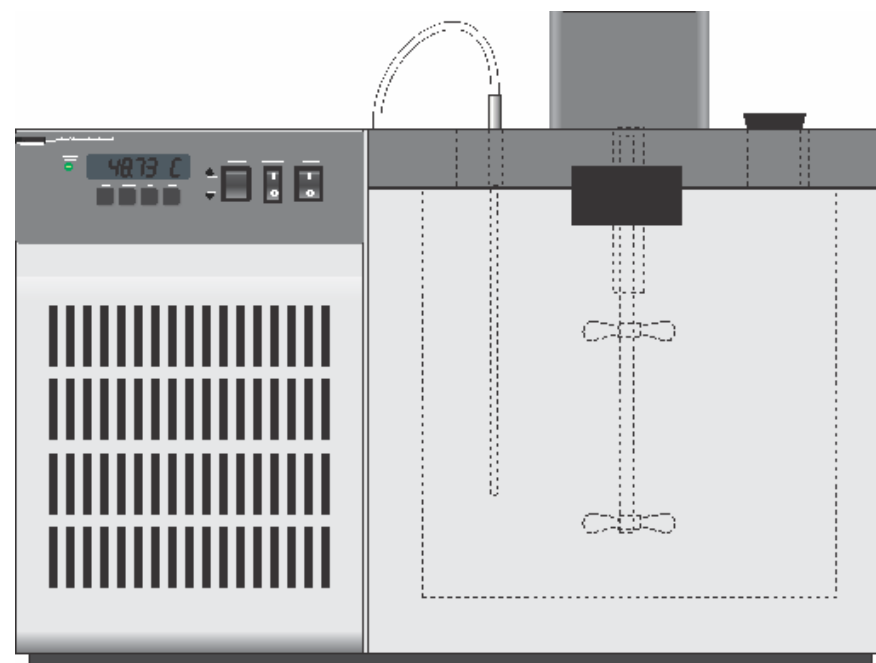
Base Model	7321
Custom Model	7BATH-025-16
Type	Refrigerated
Item #	4594977
Custom Description	Modified temp. range
Temperature Range	-20°C to 177°C
Stability	±0.005 °C at -25°C (ethanol) ±0.005 °C at 25 °C (water) ±0.007 °C at 150 °C (oil 5012) ±0.007 °C at 177 °C (oil 5014)
Uniformity	Expected to be similar to a standard 7321. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum Test Points	-20°C, 25°C and 177°C.
Control Probe	PRT
Heaters	700W
Access Opening	120 x 172 mm (4.7 x 6.8 in)
Depth	457 mm (18 in)
Wetted Parts	304 Stainless Steel
Mains Power	110 V ac (± 10%), 60 Hz, 7A
Current Draw (WCS)	5.7 A
Tank Size (LxWxD)	229 x 171 x 476 mm (9x 6.75x 18.74 in)
Volume	16 liters (4 gallons)
Weight	68 kg (150 lb.)
Size (outer dims HxWxD)	1067 x 356 x 788 mm (42 x 14 x 31 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-134A
Heating Rate (°C/min)	NOT TESTED
Cooling Rate (°C/min)	0.48 °C/min
Firmware	Modified 7321
Comments:	



Order QTY _____ Customer Approval Signature _____ Date _____

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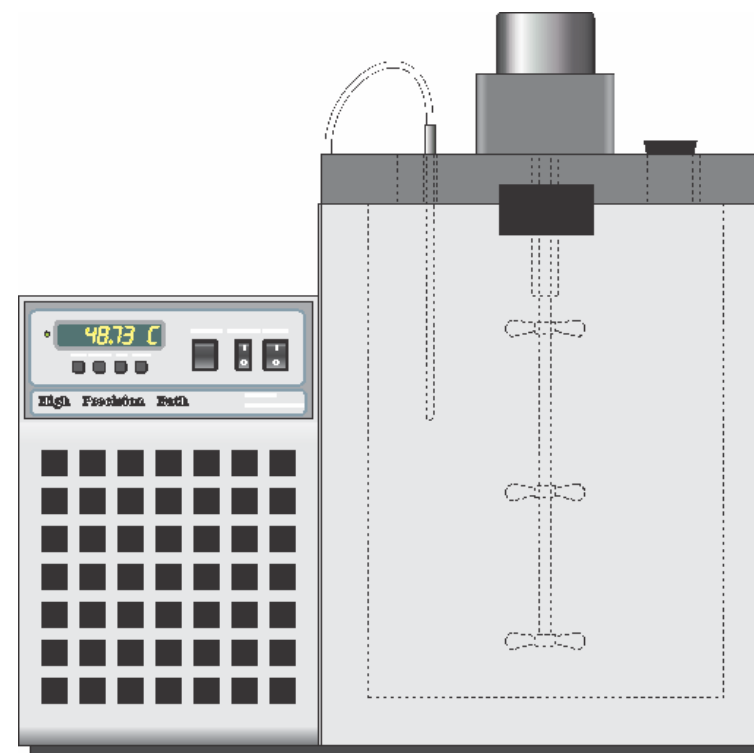
Base Model	7040
Custom Model	7BATH-026-25
Type	Refrigerated
Item #	4607385
Custom Description	Extended temp. range
Temperature Range	-40°C to 125°C
Stability	±0.002 °C at -40 °C (ethanol) ±0.0015 °C at 25 °C (water) ±0.003 °C at 100 °C (oil 5012)
Uniformity	Expected to be similar to a standard 7040. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	-40°C
Control Probe	PRT
Heaters	500W and 1000W
Access Opening	184 x 305 mm (7.25 x 12 in)
Depth	305 mm (12in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac(± 10%), 50 Hz, 9A
Current Draw (WCS)	8.0 A
Tank Size (LxWxD)	305 x 305 x 305 mm (12 x 12 x 12 in)
Volume	28.3 liters (7.5 gallons)
Weight	63.5 kg (140 lb.)
Size (outer dims HxWxD)	622 x 768 x 483 mm (24.5 x 30.2 x 19 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-507
Heating Rate (°C/min)	1°C/min.
Cooling Rate (°C/min)	.2°C/min. (over a limited range w/refrigeration ON). Overall Cooling rate is currently unknown.
Firmware	2100
Comments:	N/A



Order QTY _____ Customer Approval Signature _____ Date _____

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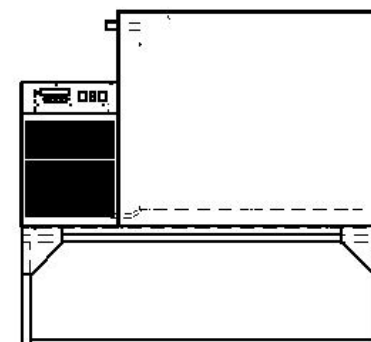
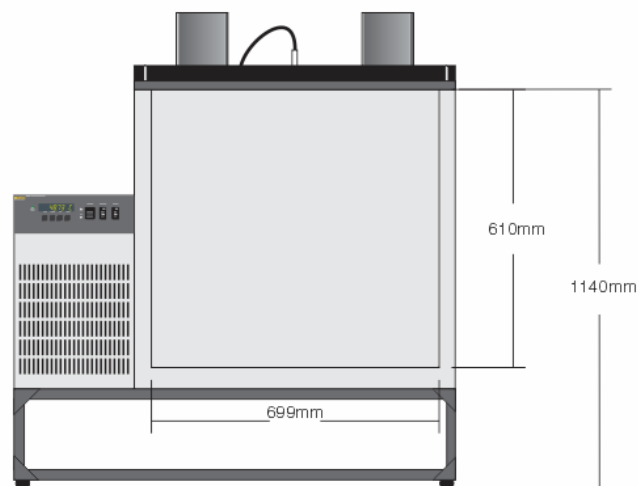
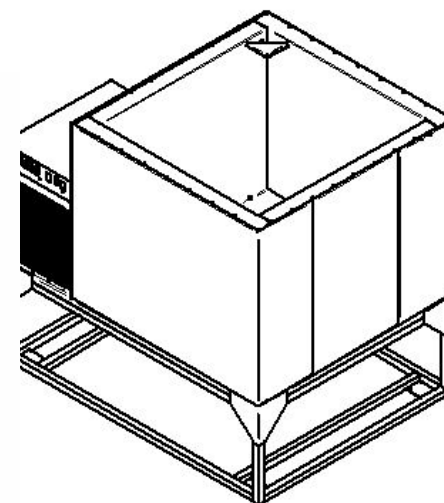
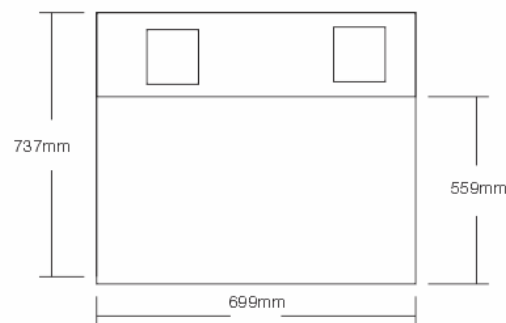
Base Model	7012
Custom Model	7BATH-027-25
Type	Refrigerated
Item #	4611363
Custom Description	Extended temperature range
Temperature Range	-10°C to 150°C
Stability	±0.002 °C at -10 °C (ethanol) ±0.0008 °C at 0 °C (ethanol) ±0.0008 °C at 25 °C (water) ±0.003 °C at 100 °C (oil 5012) ±0.006 °C at 150 °C (oil 5012)
Uniformity	Expected to be similar to a standard 7012. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	0°C, 25°C.
Control Probe	PRT
Heaters	500 and 1000 watts
Access Opening	162 x 292 mm (6.38 x 11.5 in)
Depth	457 mm (18 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac(± 10%), 50 Hz, 10A
Current Draw (WCS)	8.0 A
Tank Size (LxWxD)	305 x 305 x 457 mm (12 x 12 x 18 in)
Volume	42.5 liters (11.2 gallons)
Weight	68 kg (150 lb.)
Size (outer dims HxWxD)	762 x 686 x 401 mm (30 x 27 x 15.8 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-134a
Firmware	2100
Comments:	Can order a 2073 cart separately: item#1649917



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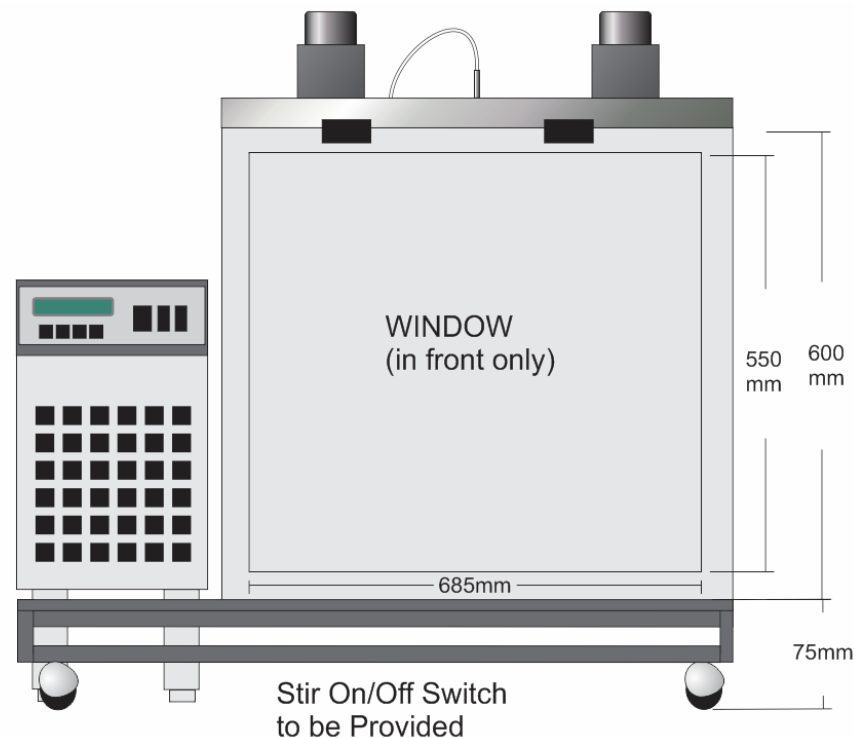
Base Model	7009
Custom Model	7BATH-029-25
Type	Refrigerated
Item #	4689345
Custom Description	(7009), 20C TO 30C, 230V 50HZ
Description Summary	Limited Temp. range, Overflow
Temperature Range	20°C to 30°C
Stability	±0.002 °C at 25 °C (water)
	Expected to be similar to a standard 7009. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Uniformity	
Minimum required Certificate Test Point(s)	25°C
Control Probe	THERMISTOR (11")
Heaters	500 and 1000 Watt
Access Opening	699 x 559 mm (27.55 x 22 in)
Depth	610 mm (24 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac (± 10%), 50 Hz, 12A
Current Draw (WCS)	11.2 A
Tank Size (LxWxD)	737 x 699 x 610 mm (29 x 27.5 x 24 in)
Volume	314 liters (83 gallons)
Weight	163 kg (360 lb.)
Size (outer dims HxWxD)	1092 x 1130 x 864 mm (43 x 44.5 x 34 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-134A
Heating Rate (°C/min)	-NOT DETERMINED
Cooling Rate (°C/min)	-NOT DETERMINED
Firmware	2100
Comments:	-



Order QTY_____ Customer Approval Signature_____ Date _____

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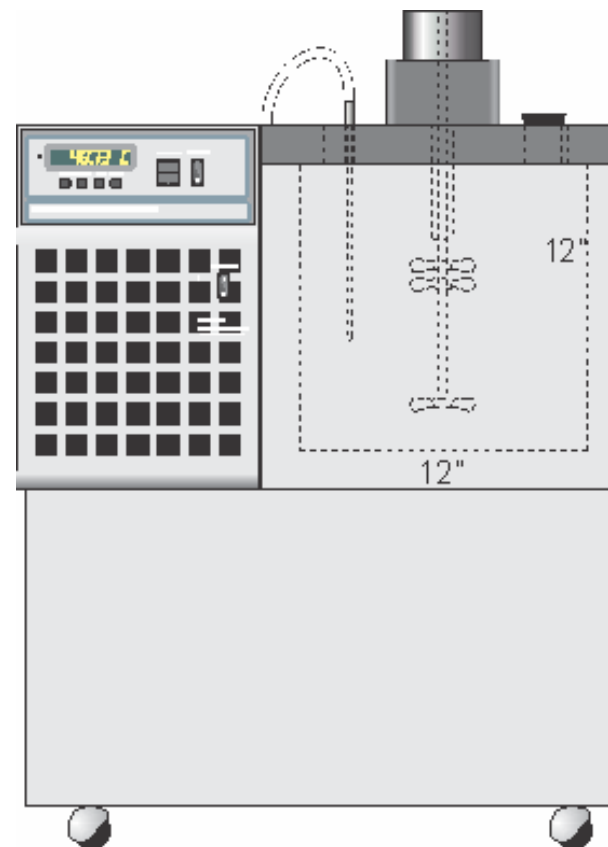
Base Model	7015
Custom Model	7BATH-030-25
Type	Refrigerated
Item #	4690044
Custom Description	(7015), WINDOW, EXT. DEPTH, 0C TO 50C, 230V 50HZ
Description Summary	Window, extended depth, separated controller box raised with levelers, low-profile cart.
Temperature Range	10°C to 50°C
Stability	±0.001 °C at 25 °C (water) – (will optimize stability, targeting ±0.0007 °C)
Uniformity	Expected to be similar to a standard 7015. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Certificate Test Point	25°C
Control Probe	PRT
Heaters	500 and 1000 Watt
Access Opening	699 x 279 mm (27.5 x 11 in)
Depth	600 mm (23.62 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac (± 10%), 50 Hz, 8A
Current Draw (WCS)	7A
Tank Size (LxWxD)	701 x 427 x 600 mm (27.6 x 16.8 x 23.62 in)
Volume	178 liters (47 gallons)
Weight	159 kg (350 lb.)
Size (outer dims HxWxD)	1270 x 1118 x 559 mm (50 x 44 x 22 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-134A
Heating Rate (°C/min)	-NOT DETERMINED
Cooling Rate (°C/min)	-NOT DETERMINED
Firmware	2100
Comments:	<ul style="list-style-type: none"> - One window in front of unit. Window size = 685mm x 550mm (27 x 21.6 in) - Cart has to be a low profile to allow for the levelers. - Stir On/Off Switch to be provided



Order QTY _____ Customer Approval Signature _____ Date _____

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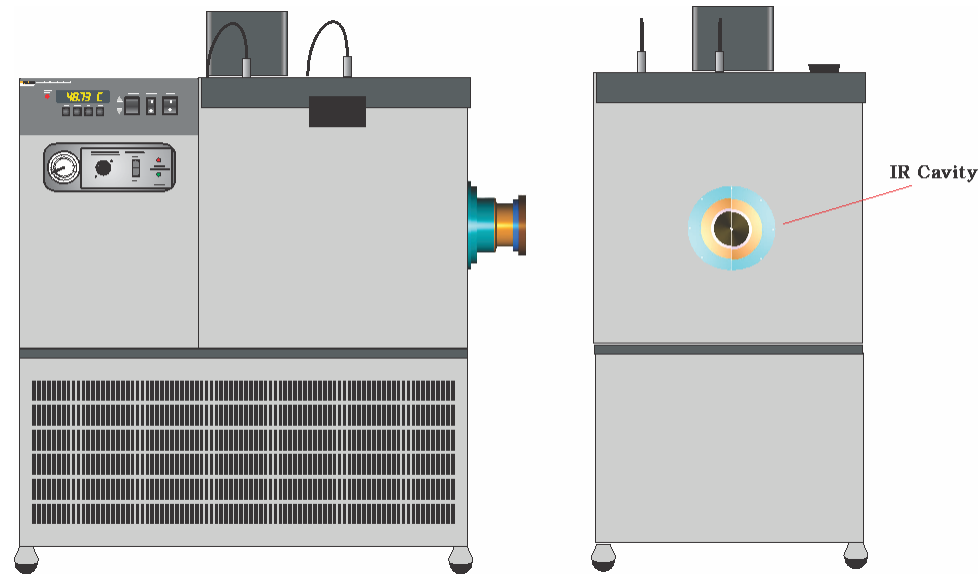
Base Model	7060
Custom Model	7BATH-031-26
Type	Refrigerated
Item #	4696444
Custom Description	Extended temp. range
Temperature Range	-60°C to 165°C
Stability	±0.0025 °C at -60°C (ethanol) ±0.0015 °C at 0°C (ethanol) ±0.0015 °C at 25°C (water) ±0.003 °C at 100°C (oil 5012) ±0.005 °C at 165°C (oil 5014)
Uniformity	Expected to be similar to a standard 7060. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	-60°C, -20°C
Control Probe	PRT
Heaters	500 and 1000 watts
Access Opening	184 x 305 mm (7.25 x 12 in)
Depth	305 mm (12 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac(± 10%), 60 Hz, 15A
Current Draw (WCS)	12.8 A
Tank Size (LxWxD)	305 x 305 x 305 mm (12 x 12 x 12 in)
Volume	27 liters (7.2 gallons)
Weight	159 kg (350 lb.)
Size (outer dims HxWxD)	1168x 775 x 483 mm (46 x 30.5 x 19 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	1 st = R-507, 2 nd = R-508B
Heating Rate (°C/min)	
Cooling Rate (°C/min)	
Firmware	2100
Comments:	



Order QTY_____ Customer Approval Signature_____ Date _____

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Base Model	7081
Custom Model	7BATH-032-26
Type	Refrigerated (2 stage cascade system)
Item #	4700441
Custom Description	IR Cavity (Joel Fowler) with dry gas purge to prevent water condensation or icing up; includes aperture ASSY; custom temp. range.
Temperature Range	-50°C to 25°C
Stability	25 to -15°C < 0.003 °C (ethanol) -15 to -50°C < 0.005 °C (ethanol)
Uniformity	25 to -15°C < 0.005 °C (ethanol) -15 to -50°C < 0.008 °C (ethanol) *Note: Uniformity applies to the fluid surrounding the cavity up to 1.5 inches from the bath tank wall.
Minimum required Certificate Test Point(s)	-50°C, -20°C
Control Probe	PRT
Reference Probe	5628 PRT (To be provided as part of the package. Probe length and termination to be specified).
Heaters	500 and 1000 watts
Access Opening	254 x 356 mm (10 x 14 in).
Depth	337 mm (13.25 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac(± 10%), 60 Hz, 15A
Current Draw (WCS)	12.8 A
Tank Size (LxWxD)	356 x 356 x 337 mm (14 x 14 x 13.25 in)
Volume	42 liters (11.2 gallons)
Weight	159 kg (350 lb.)
Size (outer dims HxWxD)	1320 x 775 x 483 mm (52 x 30.5 x 19 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type	1 st = R-507a, 2 nd = R-508B
Firmware	2100
Additional Features	IEEE-488
IR Cavity	Bath will use a Fluke 2033 IR Cavity with ¼" tube at the cone apex to connect cooling tube for chilled air. Cavity design is the Joel Fowler cavity design as described in J. Res. Natl. Inst. Stand. Technol., Vol. 100, p 591, 1995 – A Third Generation Water Bath Based Blackbody Source



Order QTY_____

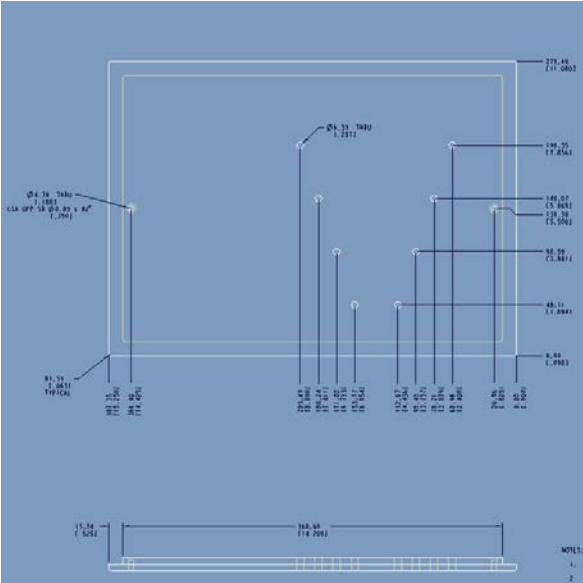
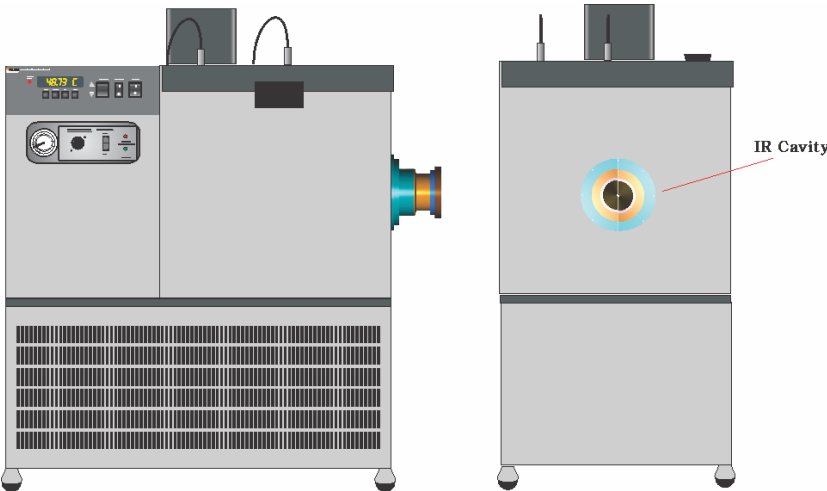
Customer Approval Signature_____

Date _____

Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

SPECS. CONTINUED...

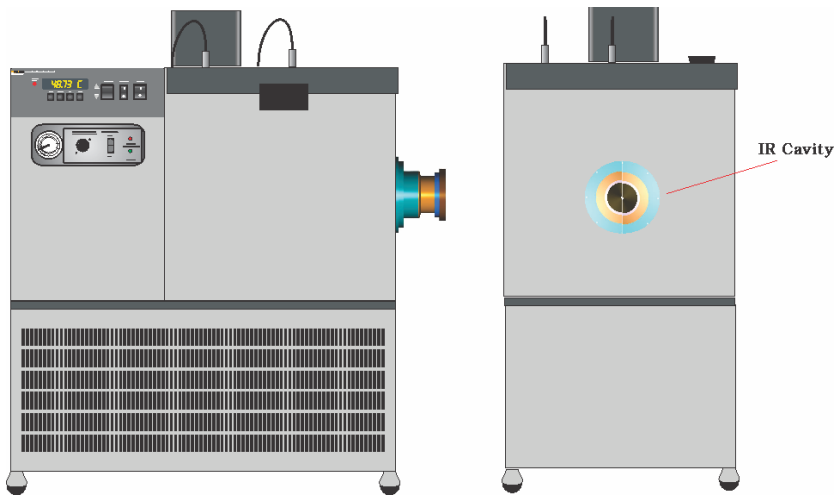
Base Model	7081
Custom Model	7BATH-032-26
Type	Refrigerated
Item #	4700441
Scan & Settling Time	7 hours scan down time from 25°C to -50°C. 15 minutes to stabilize to within 15 mK at -50°C.
Emissivity	IR cavity will be manufactured consistent with the NIST Joel Fowler design. The resulting emissivity value of 0.9999 across the spectral range of 3-15 microns with a 50 mm aperture as described in the aforementioned Joel Fowler paper is implied based upon the manufacturing process. The emissivity of the IR cavity will not be validated.
Aperture	Multiple interchangeable apertures will be provided with internal diameters of 25 mm, 38, mm 50 mm, and 75 mm. The surfaces facing the apex of the cavity will be polished 6061 Aluminum.
Dry Gas Purge	Ports for connecting a dry-air purge will be provided. End-user will need to employ a dry air generator with a recommended dew point of -73°C and maximum flow of 30 lpm.
Bath Physical Layout	The IR Cavity can be specified by the customer to be on the right side of the unit (as drawn) or on the front of the unit.
Access Cover	Access cover with holes for probe insertion near cavity will be provided as depicted in the sketch on this page.
Condensation	Engineering to address potential condensation during the design testing.
Additional Details	Bath will operate in stand-alone mode with digital display and push-button data entry, or with computer controlled control via GPIB interface.
Warranty	1 year



Order QTY_____ Customer Approval Signature_____ Date _____

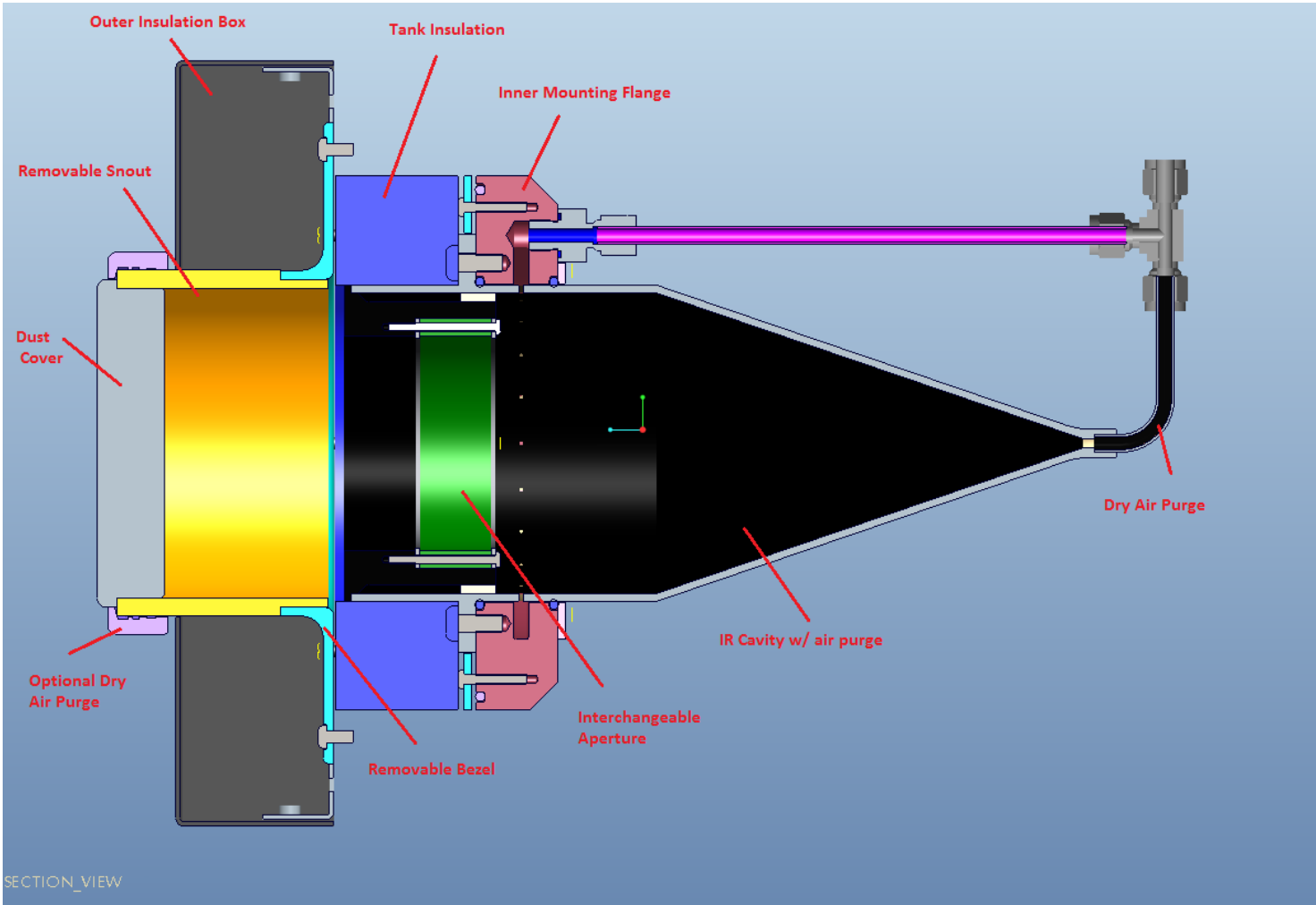
SPECS. CONTINUED...

Base Model	7081
Custom Model	7BATH-032-26
Type	Refrigerated
Item #	4700441
General Description	<p>The Fluke model 7081 bath was chosen as the base platform for this customization because its size, temperature range, stability, and uniformity performance is consistent with the needs of this application.</p> <p>Customizing the Fluke 7081 is to include an IR Cavity with the capabilities described in the Journal of Research of the National Institute of Standards and Technology, Vol. 100 Sept-Oct 1995 by Joel B. Fowler. The cavity will be modified in the following ways:</p> <ol style="list-style-type: none">1) A tube will be attached to the apex of the conical cavity which will allow a chilled dry gas to purge through the cavity to eliminate condensing or frosting of the air in the cavity. It will further reduce the temperature delta across the walls of the cavity reducing temperature errors on the cavity surface relative to the bath fluid.2) A removable aperture assembly will be provided to fit into the mouth of the cavity allowing different sizes to be installed as needed (4 sizes to be provided). <p>The modifications of the 7081 bath will include the following:</p> <ol style="list-style-type: none">1) A hole for the cavity and mounting holes as needed to support and seal the cavity in place.2) A heat exchanger for the dry purge gas of adequate size will be installed inside the bath in addition to the cavity in order to equilibrate the purge gas to the bath temperature. Appropriate inlet port and fittings are to be included.3) An additional purge will be provided at a point outside of the cavity and the bath but attached to the bath. This purge will provide an additional barrier to the entrance of moisture into the cavity. This purge gas will be room temperature.



Order QTY_____ Customer Approval Signature_____ Date _____

Section view

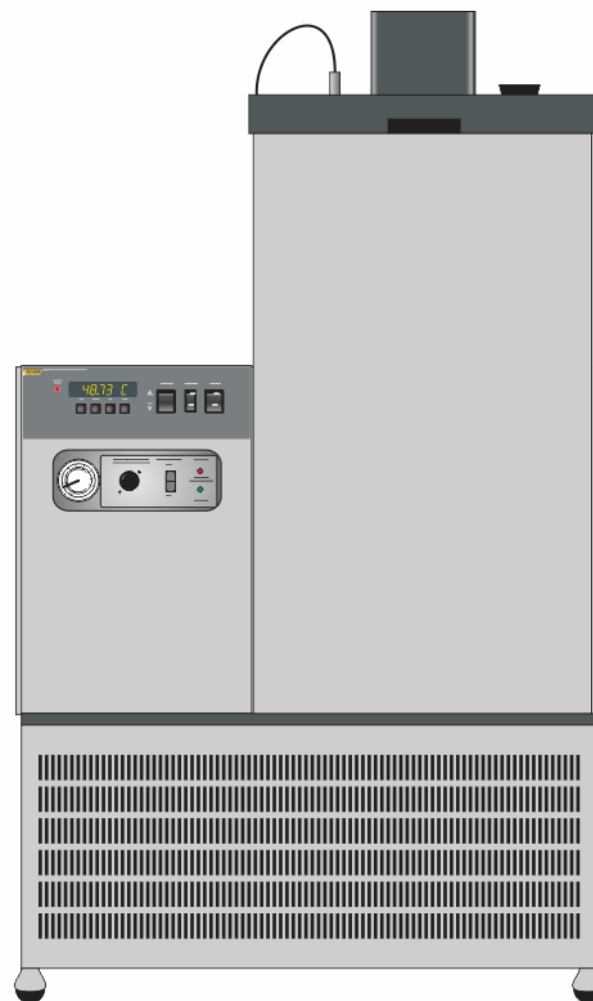


*Note: The following page (pg. 5 of 5) is a 3D PDF of the model

Order QTY_____ Customer Approval Signature_____ Date _____

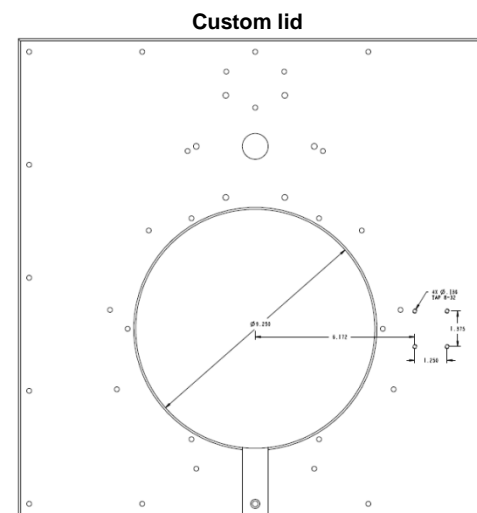
Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

Base Model	7080
Custom Model	7BATH-033-26
Type	Refrigerated
Item #	4717204
Custom Description	Deeper Tank, temp. range
Temperature Range	-70°C to 110°C
Stability	±0.003 °C at -70°C (ethanol) ±0.002 °C at -50°C (ethanol) ±0.0015 °C at 25°C (water)
Uniformity	Expected to be similar to a standard 7080. Expected ±0.005 °C at -50°C (ethanol) (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	-70°C, -50°C
Control Probe	PRT
Heaters	500 and 1000 watts
Access Opening	127 x 254 mm (5 x 10 in)
Depth	610 mm (24 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac(± 10%), 60 Hz, 15A
Current Draw (WCS)	12.8 A
Tank Size (LxWxD)	305 x 305 x 610 mm (12 x 12 x 24 in)
Volume	54 liters (14.4 gallons)
Weight	170 kg (375 lb.)
Size (outer dims HxWxD)	1473 x 775 x 483 mm (58 x 30.5 x 19 in)
Automation	RS-232, IEEE-488
Over Current Protection	Fuses
Refrigeration Type (grams)	1 st = R-507, 2 nd = R-508B
Heating Rate (°C/min)	NOT DETERMINED
Cooling Rate (°C/min)	>= .08
Firmware	2100
Comments:	



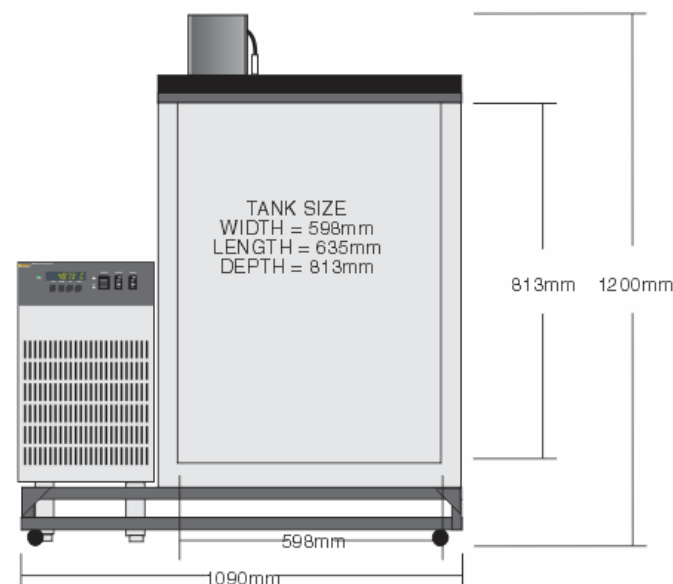
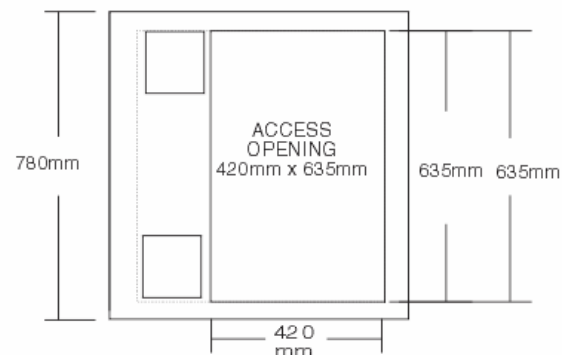
Order QTY_____ Customer Approval Signature_____ Date _____

Base Model	7007
Custom Model	7BATH-034-26
Type	Refrigerated
Item #	4724103
Custom Description	Custom Lid and mount
Temperature Range	-5°C to 110°C
Stability	±0.001 °C at 0 °C (ethanol) ±0.003 °C at 100 °C (oil 5012)
	Expected to be similar to a standard 7007. [Standard 7007 uniformity: ±0.004 °C at 0 °C (ethanol) ±0.007 °C at 100 °C (oil 5012) (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Uniformity	
Minimum required Certificate Test Point(s)	25°C
Control Probe	PRT
Access Opening (LxW)	178 mm dia (7 in.)
Depth	610 mm (24 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac(± 10%), 60 Hz
Tank Size (LxWxD)	310 x 356 x 630 mm (12.2 x 14 x 24.8 in)
Volume	69 liters (18 gallons)
Weight	71 kg (156 lb.)
Size (outer dims HxWxD)	470 x 775 x 194 mm to working surface (18.5 x 30.5 x 47 in), 1397 mm (55 in) to top of stir motor, 914 mm (36 in) to control panel
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-134a
Firmware	2100
Comments:	N/A



Order QTY_____ Customer Approval Signature_____ Date _____

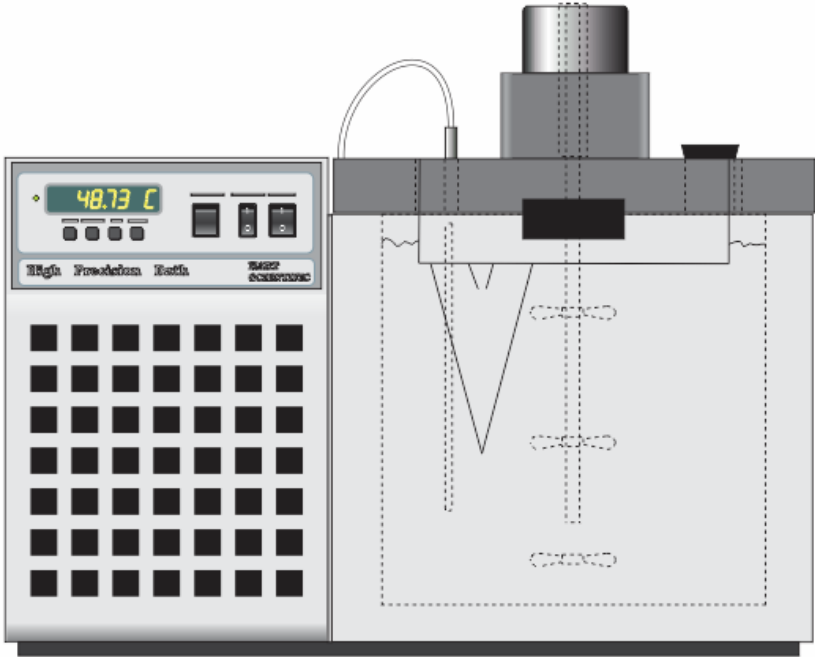
Base Model	7040
Custom Model	7BATH-035-25
Type	Refrigerated
Item #	4724847
Custom Description	Larger tank, larger refrigeration system
Temperature Range	-40°C to 120°C
Stability	±0.002 °C at -40 °C (ethanol) ±0.0015 °C at 25 °C (water or ethanol) ±0.0010 °C at 0 °C (ethanol) ±0.003 °C at 100 °C (oil 5014)
Uniformity	±0.003 °C at 25 °C (water or ethanol)
Minimum Certificate Test Point(s)	-40°C, 0°C, 100°C
Control Probe	PRT
Heaters	1000W and 2000W
Access Opening (LxW)	420 x 635 mm (16 x 25 in)
Depth	813 mm (32 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac(± 10%), 50 Hz, 25A
Current Draw (WCS)	17 A
Tank Size (LxWxD)	598 x 635 x 813 mm (23.5 x 25 x 32 in)
Volume	308 liters (81 gallons)
Weight	159 kg (350 lb.) (estimate)
Size (outer dims HxWxD)	1200 x 1090 x 780mm (47 x 43 x 31 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-507
Heating Rate (°C/min)	0.3 (estimate)
Cooling Rate (°C/min)	0.07 (estimate from 25°C to -40°C)
Firmware	2100
Comments:	<ul style="list-style-type: none"> - Unit comes with Fluke 9930 Software and Documentation CD. - Controller separated from chassis for vibration reduction. Cart will be low profile to allow for the levelers to raise the controller box. - Stir On/Off Switch to be provided to reduce motor vibration. We estimate 5 minutes of stability will be maintained with the stir motors off. - Customer must supply fluid for testing. Fluke will return fluid to the customer but is not liable for fluid loss due to spills, evaporation, etc.



Customer Approval Signature_____

Date _____ Order QTY_____

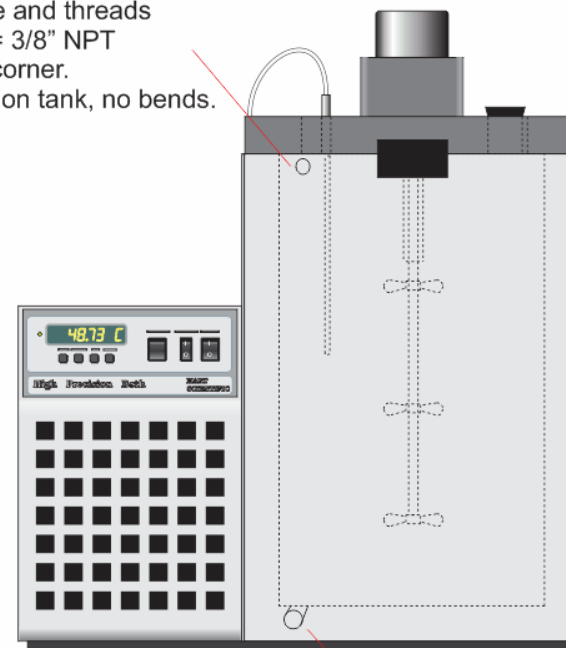
Base Model	7008
Custom Model	7BATH-036-16
Type	Refrigerated
Item #	4744798
Custom Description	Custom top-mounted IR Cone
Temperature Range	-5°C to 110°C
Stability	±0.0007 °C at 25°C (water) ±0.001 °C at 25°C (mineral oil)
Uniformity	Expected to be similar to a standard 7008. [Standard 7008 uniformity: ±0.003 °C at 25°C (water) ±0.004 °C at 25°C (mineral oil)] (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	25°C
Control Probe	PRT
Access Opening (LxW)	184 x 324 mm (7.25 x 12.75 in)
Depth	330 mm (13 in)
Wetted Parts	304 Stainless Steel
Mains Power	115 V ac (± 10%), 50/60 Hz, 10A
Tank Size (LxWxD)	356 x 356 x 330 mm (14 x 14 x 13.25 in)
Volume	42 liters (11.2 gallons)
Weight	63.5 kg (140 lb.)
Size (outer dims HxWxD)	610 x 775 x 483 mm (24 x 30.5 x 19 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-134a
Firmware	2100
Comments:	N/A



Order QTY_____ Customer Approval Signature_____ Date _____

Base Model	7012
Custom Model	7BATH-037-25
Type	Refrigerated
Item #	4749900
Custom Description	Deeper, Drain and Overflow custom, Extended temperature range
Temperature Range	-10°C to 150°C
Stability	±0.002 °C at -10 °C (ethanol) ±0.0008 °C at 0 °C (ethanol) ±0.0008 °C at 25 °C (water) ±0.003 °C at 100 °C (oil 5012) ±0.006 °C at 150 °C (oil 5012)
Uniformity	Expected to be similar to a standard 7012. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	0°C
Control Probe	PRT
Heaters	500 and 1000 watts
Access Opening	162 x 292 mm (6.38 x 11.5 in)
Depth	559 mm (22 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac(± 10%), 50 Hz, 10A
Current Draw (WCS)	8.0 A
Tank Size (LxWxD)	305 x 305 x 559 mm (12 x 12 x 22 in)
Volume	52 liters (13.7 gallons)
Weight	68 kg (150 lb.)
Size (outer dims HxWxD)	864 x 686 x 401 mm (34 x 27 x 15.8 in)
Automation	RS-232, Purchase 2001-IEEE as separate line on the order: Item#1649341
Over Current Protection	Fuses
Refrigeration Type (grams)	R-134a
Firmware	2100
Comments:	Can order a 2073 cart separately: item#1649917

Two Overflows on front and back of bath, = 1/2" OD
With same size and threads
as front drain = 3/8" NPT
- No overflow corner.
- Located high on tank, no bends.

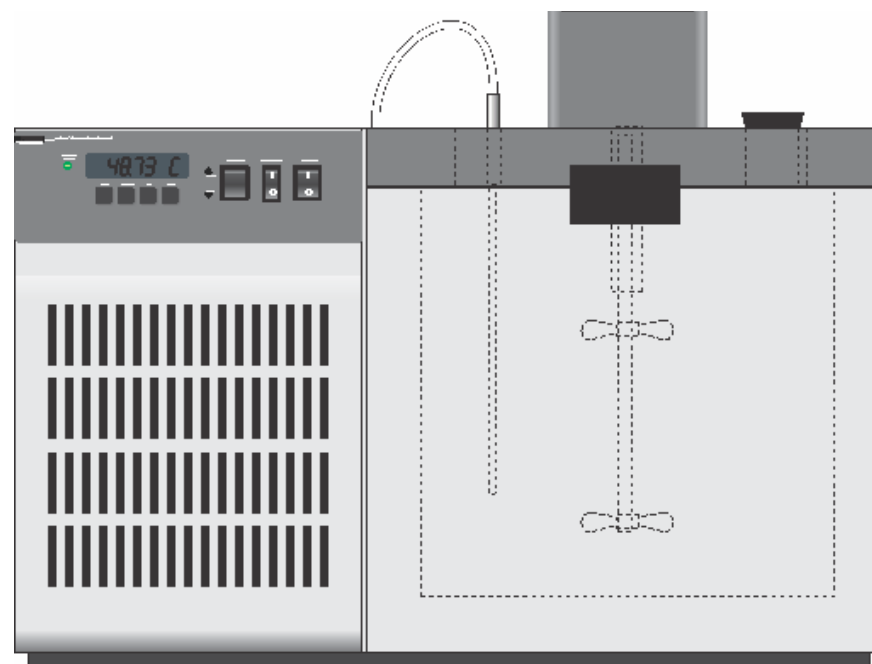


Two Drains on Front and Back of bath

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Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

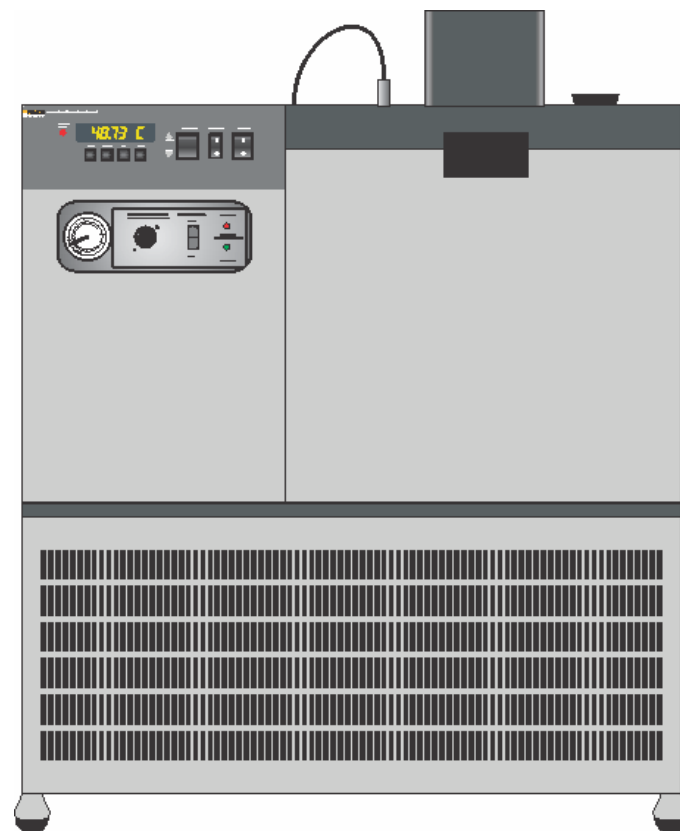
Base Model	7040
Custom Model	7BATH-XXX-26
Type	Refrigerated
Item #	TBD
Custom Description	Extended temp. range
Temperature Range	-45°C to 155°C
Stability	<±0.005 °C at -40 °C (ethanol) <±0.004 °C at 25 °C (water) <±0.008 °C at 100 °C (oil 5012)
Uniformity	Expected to be similar to a standard 7040. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum test points	-45°C, -20°C and 25°C.
Control Probe	PRT
Heater (Immersion)	700 Watts
Access Opening	127 x 254 mm (5 x 10 in)
Depth	305 mm (12in)
Wetted Parts	304 Stainless Steel
Mains Power	208-230 VAC (± 10%), 60 Hz, 10A
Current Draw (WCS)	6.5 A
Tank Size (LxWxD)	305 x 305 x 305 mm (12 x 12 x 12 in)
Volume	28.3 liters (7.5 gallons)
Weight	63.5 kg (140 lb.)
Size (outer dims HxWxD)	622 x 838 x 483 mm (24.5 x 33 x 19 in)
Automation	RS-232 and IEEE
Over Current Protection	Fuses
Refrigeration Type (grams)	R-507
Heating Rate (°C/min)	1°C/min.
Cooling Rate (°C/min)	.3°C/min. (over a limited range w/refrigeration ON). Overall Cooling rate is currently unknown.
Firmware	2100
Comments:	We cannot recommend a suitable fluid to cover the entire temperature range of this unit.



Customer Approval Signature_____ Date _____

Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

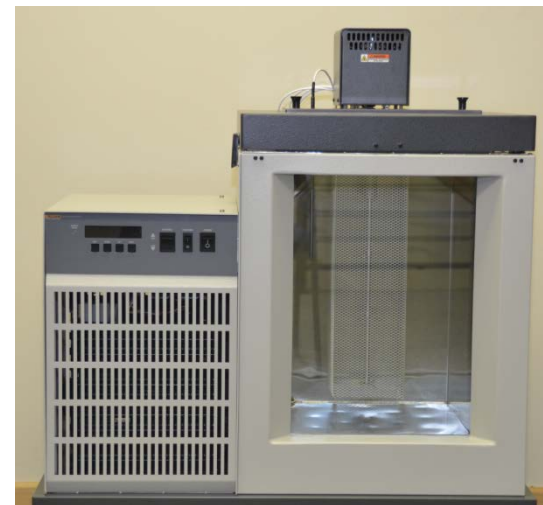
Base Model	7437
Custom Model	7BATH-039-26
Type	Refrigerated
Item #	4837725
Custom Description	Quick cool Calibration Bath
Temperature Range	-40°C to 150°C
Stability	±0.0025 °C at -40°C (ethanol) ±0.0015 °C at 0°C (ethanol) ±0.0015 °C at 25°C (water) ±0.003 °C at 100°C (oil 5012)
Uniformity	Expected to be similar to a standard 7040. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	25°C and -40°C
Control Probe	PRT
Heaters	500 and 1000 watts
Access Opening	127 x 254 mm (5 x 10 in)
Depth	305 mm (12 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac (± 10%), 50 Hz, 15A
Current Draw (WCS)	8.4 A
Tank Size (LxWxD)	12" X 12" X 12"
Volume	27 liters (7.2 gal)
Weight	159 kg (350 lb.)
Size (outer dims HxWxD)	1320 x 775 x 483 mm (52 x 30.5 x 19 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-507
Heating Rate (°C/min)	0.50 °C/min
Cooling Rate (°C/min)	0.44 °C/min (147 min scan from 25°C to -40°C)
Firmware	2100
Comments:	



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Base Model	7012 / 7037
Custom Model	7BATH-040-25
Type	Refrigerated
Item #	4851879
Custom Description	Window in front, Overflow.
Temperature Range	10°C to 30°C
Stability	±0.0008 °C at 25 °C (water)
Uniformity	Expected to be similar to a standard 7012. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	25°C
Control Probe	Thermistor
Heaters	500 and 1000 watts
Access Opening	162 x 292 mm (6.38 x 11.5 in)
Depth	457 mm (18 in)
Wetted Parts	304 Stainless Steel
Mains Power	220-240 VAC (± 10%), 50 Hz, 8A T
Current Draw (WCS)	6 A
Tank Size (LxWxD)	305 x 305 x 457 mm (12 x 12 x 18 in)
Volume	42.5 liters (11.2 gallons)
Weight	68 kg (150 lb.)
Size (outer dims HxWxD)	775 x 768 x 483 mm (30.5 x 30.25 x 19 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-134a
Heating Rate (°C/min)	NOT DEFINED
Cooling Rate (°C/min)	0.15 °C/min EXPECTED
Firmware	2100
Comments:	Can order a 2073 cart separately: item#1649917



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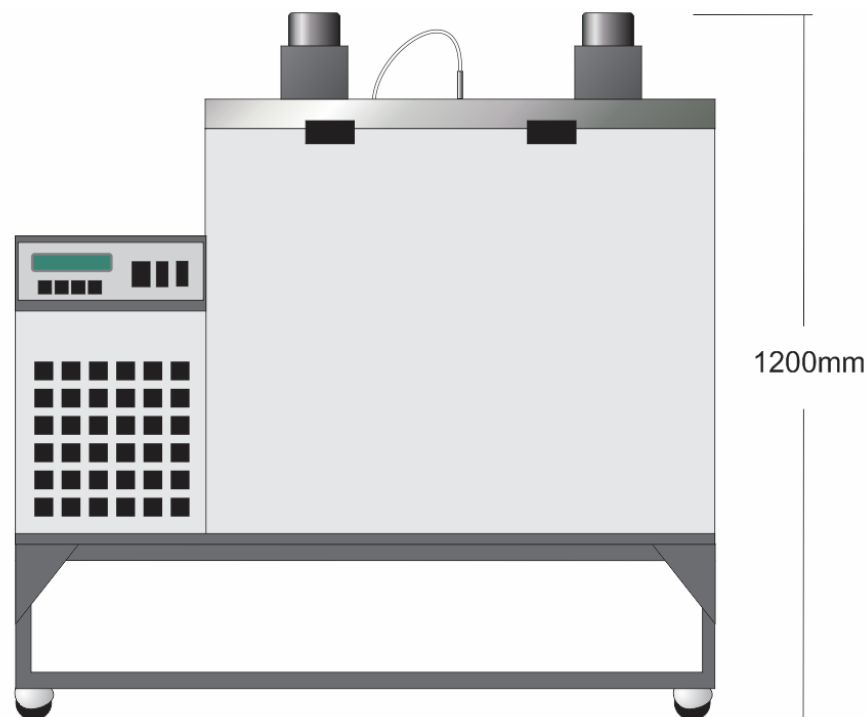
Base Model	7008
Custom Model	7BATH-0041-25
Type	Refrigerated
Item #	4859340
Custom Description	7BATH-041-25,(7008 MAX), 18 INCH DEEP TANK, 220V, 50HZ
Temperature Range	-5°C to 110°C
Stability	±0.0007 °C at 25°C (water) ±0.001 °C at 25 °C (mineral oil)
Uniformity	Expected to be similar to a standard 7008. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	25°C with water
Control Probe	Thermistor
Heaters	500 and 1000 watts
Access Opening	356 x 255 mm (10 x 14.25 in)
Depth	460 mm (18 in)
Wetted Parts	304 Stainless Steel
Mains Power	220-240 V ac (± 10%), 50 Hz, 8A
Current Draw (WCS)	7.5
Tank Size (LxWxD)	356 x 356 x 460 mm (14.25 x 14.25 x 18 in)
Volume	Approx. 58 liters (15 gallons)
Weight	68 kg (150 lb.)
Size (outer dims HxWxD)	775 x 768 x 483 mm (30.5 x 30.25 x 19 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-134A
Heating Rate (°C/min)	Not verified
Cooling Rate (°C/min)	0.007 °C/min (estimated)
Firmware	2100
Comments:	



Order QTY_____ Customer Approval Signature_____ Date _____

Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

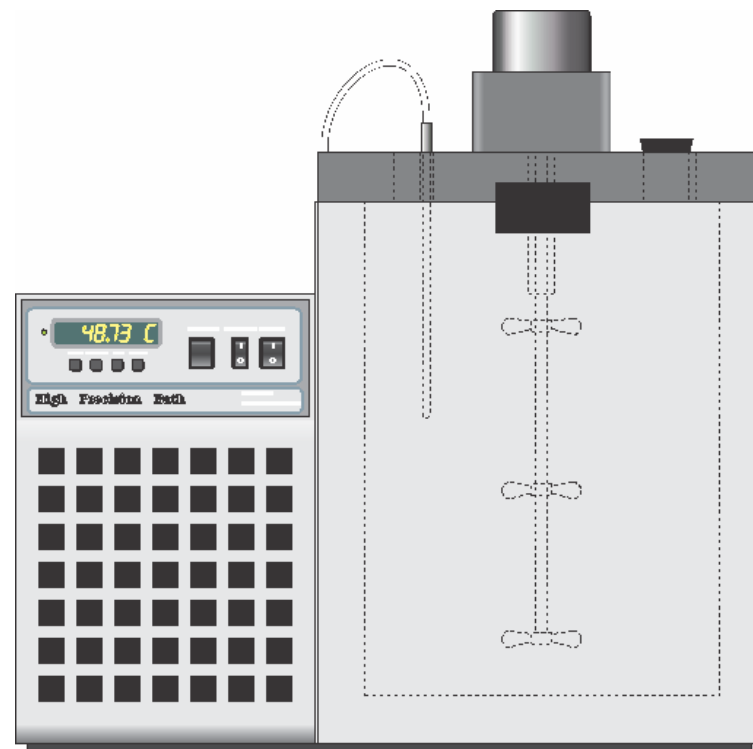
Base Model	7015
Custom Model	7BATH-042-25
Type	Refrigerated
Item #	
Custom Description	24" deep tank. All Titanium construction for sea water use.
Temperature Range	0°C to 50°C
Stability	±0.005 °C at -5°C (ethanol) ±0.005 °C at 25°C (oil 5014) ±0.005 °C at 110°C (oil 5014)
Uniformity	Expected to be similar to a standard 7015. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	0°C, 25°C and 50°C
Control Probe	Thermistor
Heaters	1340 and 2600 watts
Access Opening	699 x 279 mm (27.5 x 11 in)
Depth	559 mm (24 in)
Wetted Parts	Titanium (Grade 2)
Mains Power	230 V ac(± 10%), 50 Hz, 15A
Current Draw (WCS)	13.5 A
Tank Size (LxWxD)	702 x 427 x 559 mm (27.63 x 16.8 x 24.0 in)
Volume	167 liters (48 gallons)
Weight	159 kg (350 lb.)
Size (outer dims HxWxD)	1200 x 1118 x 559 mm (47 x 44 x 22 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-134a
Heating Rate (°C/min)	-NOT DETERMINED
Cooling Rate (°C/min)	-NOT DETERMINED
Firmware	2100
Comments:	



Order QTY_____ Customer Approval Signature_____ Date _____

Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

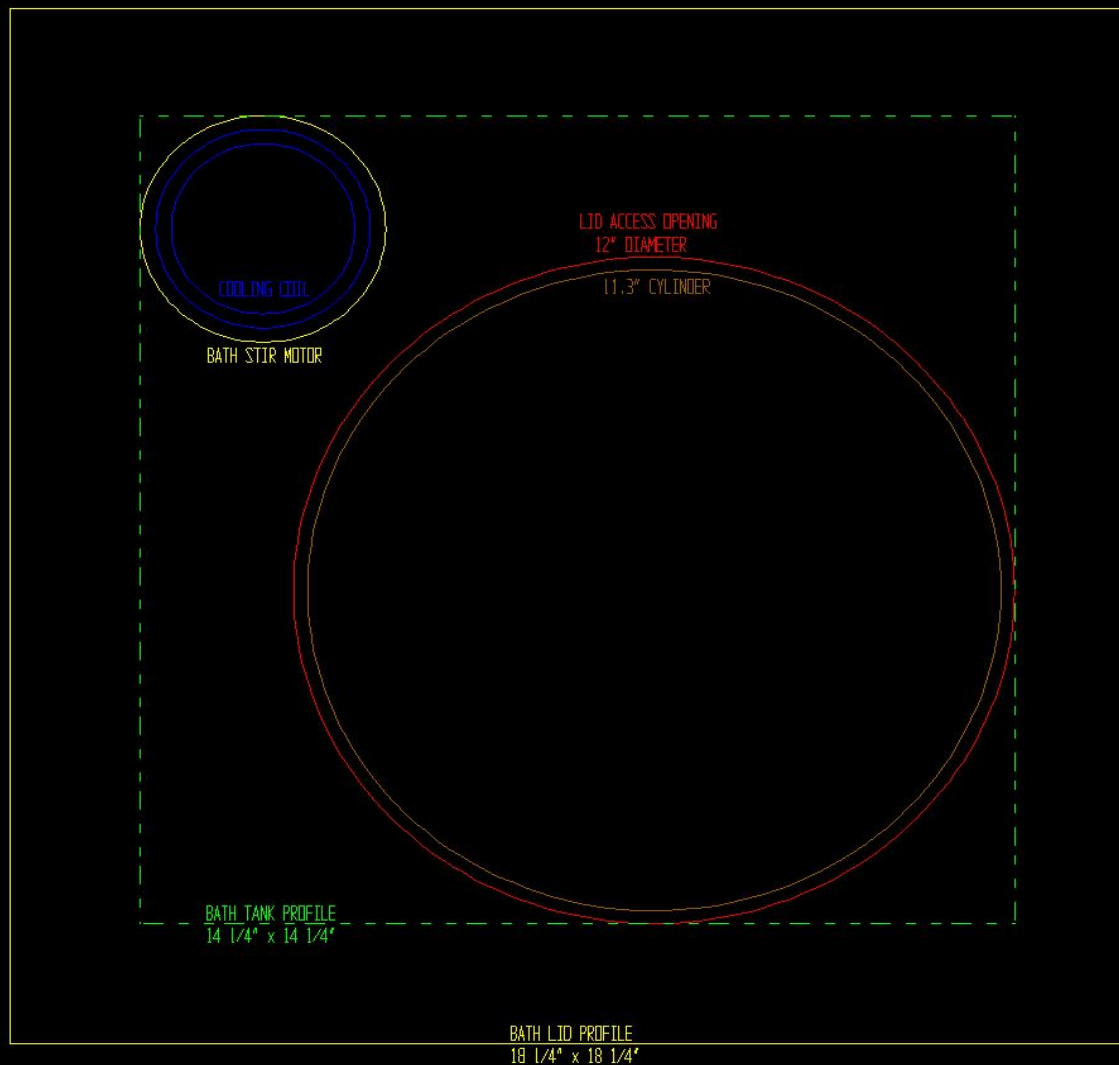
Base Model	7037
Custom Model	7BATH-043-26
Type	Refrigerated
Item #	TBD
Custom Description	Extended temp. range. Round access opening.
Temperature Range	-45°C to 155°C
Stability	<±0.005 °C at -40 °C (ethanol) <±0.004 °C at 25 °C (water) <±0.008 °C at 100 °C (oil 5012)
Uniformity	Expected to be similar to a standard 7037. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum test points	-45°C, -20°C and 25°C.
Control Probe	PRT
Heater (Immersion)	700 Watts
Access Opening	12 inches in diameter.
Depth	508 mm (20in)
Wetted Parts	304 Stainless Steel
Mains Power	208-230 VAC (± 10%), 60 Hz, 10A
Current Draw (WCS)	6.5 A
Tank Size (LxWxD)	305 x 305 x 305 mm (12 x 12 x 12 in)
Volume	Approx. 46 liters (13 gallons)
Weight	72.6 kg (160 lb.)
Size (outer dims HxWxD)	826 x 768 x 483 mm (32.5 x 30.25 x 19 in)
Automation	RS-232 and IEEE
Over Current Protection	Fuses
Refrigeration Type (grams)	R-507
Heating Rate (°C/min)	0.7°C/min. (expected).
Cooling Rate (°C/min)	.2°C/min. (over a limited range w/refrigeration ON). Overall Cooling rate is currently unknown.
Firmware	2100
Comments:	We cannot recommend a suitable fluid to cover the entire temperature range of this unit. Floor cart is available for this model. Not included in the quoted price.



Customer Approval Signature _____ Date _____

Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

Standard bath lid will be replaced by this design. Access opening will be round (12" in diameter). Stir motor will be mounted in the corner as shown.



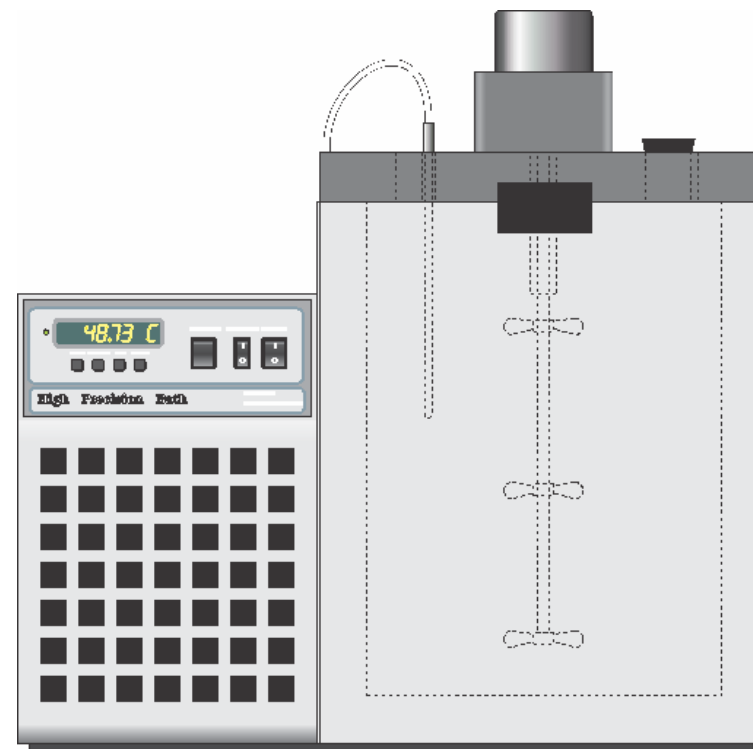
Customer Approval Signature _____ Date _____

Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

7BATH-044-26 (Custom 7040: WITH 26" TANK DEPTH)

FLUKE®

Base Model	7040
Custom Model	7BATH-044-26
Type	Refrigerated
Item #	TBD
Custom Description	26 3/8" Actual Tank depth
Temperature Range	-40°C to 150°C
Stability	<±0.005 °C at -40 °C (ethanol) <±0.004 °C at 25 °C (water) <±0.008 °C at 100 °C (oil 5012)
Uniformity	Expected to be similar to a standard 7040. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum test points	-40°C, -20°C and 25°C.
Control Probe	PRT
Heater (Tank Mounted)	500 watts (Low Heat) 1000 Watts (High Heat)
Access Opening	127 x 254 mm(5 x 10 in)
Depth	660 mm (26in)
Wetted Parts	304 Stainless Steel
Mains Power	208-230 VAC (± 10%), 60 Hz, 1A
Current Draw (WCS)	8 A
Tank Size (LxWxD)	305 x 305 x 660 mm (12 x 12 x 26 in)
Volume	Approx. 60 liters (16 gallons)
Weight	68 kg (150 lb.)
Size (outer dims HxWxD)	978 x 768 x 483 mm (38.5 x 30.25 x 19 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-507
Heating Rate (°C/min)	0.5°C/min. (expected).
Cooling Rate (°C/min)	.2°C/min. (over a limited range w/refrigeration ON). Overall Cooling rate is currently unknown.
Firmware	2100
Comments:	Floor cart is available for this model. Not included in the quoted price.



Customer Approval Signature_____ Date _____

Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

Base Model	7009
Custom Model	7BATH-045-26
Type	Refrigerated
Item #	4959359
Custom Description	7009 design with 316 SST construction/wetted parts.
Temperature Range	-10 to 110° C
Stability	±0.0007 °C at 25 °C (water) ±0.001 °C at 25 °C (mineral oil)
Uniformity	Expected to be similar to a standard 7009. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	25°C
Control Probe	Thermistor
Heaters	500 and 1000 watts
Access Opening	699 x 559 mm (27.55 x 22 in)
Depth	330 mm (13 in)
Wetted Parts	316 Stainless Steel
Mains Power	230 V ac (± 10%), 50 Hz, 12A
Current Draw (WCS)	8 A
Tank Size (LxWxD)	737 x 699 x 335mm (29x27.5x13.19 in)
Volume	166 liters (44 gallons)
Weight	150 kg (330 lb.)
Size (outer dims HxWxD)	1092 x 1130 x 864 mm (43 x 44.5 x 34 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R507-480 grams
Heating Rate (°C/min)	Not determined
Cooling Rate (°C/min)	Not determined
Firmware	2100
Comments:	



Order QTY_____ Customer Approval Signature_____ Date _____

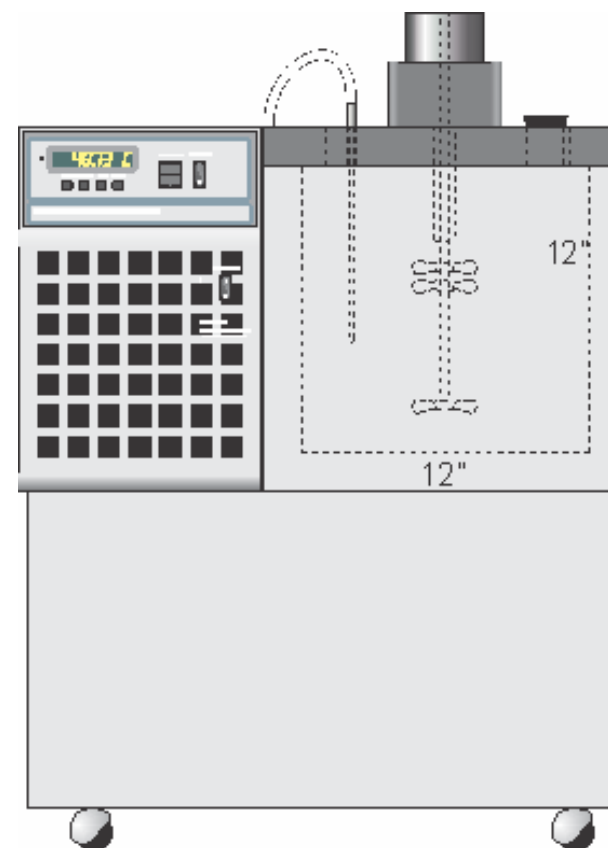
Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

Base Model	7015
Custom Model	7BATH-046-25
Type	Refrigerated
Item #	TBD
Custom Description	316 SST all Wetted parts
Temperature Range	0°C to 110°C
Stability	±0.001 °C at 25°C (oil 5014) ±0.002 °C at 100°C (oil 5014) ±0.003 °C at 110°C (oil 5014)
Uniformity	Expected to be similar to a standard 7015. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	25°C With Water
Control Probe	Thermistor
Heaters	500 and 1000 watts
Access Opening	699 x 279 mm (27.5 x 11 in)
Depth	330 mm (13 in)
Wetted Parts	316 Stainless Steel
Mains Power	230 V ac(± 10%), 50/60 Hz, 8A
Current Draw (WCS)	7.5 A
Tank Size (LxWxD)	702 x 427 x 328 mm (27.63 x 16.8 x 12.94 in)
Volume	98 liters (26 gallons)
Weight	141 kg (310 lb.)
Size (outer dims HxWxD)	1219 x 1118 x 559 mm (48 x 44 x 22 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	R-134a
Heating Rate (°C/min)	0.40 (°C/min)
Cooling Rate (°C/min)	0.03 (°C/min)
Firmware	2100
Comments:	



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Base Model	7080
Custom Model	7080-25-7BATH
Type	Refrigerated
Item #	4633624
Custom Description	Making 220V, 50Hz available.
Temperature Range	-80°C to 110°C
Stability	±0.0025 °C at -80°C (ethanol) ±0.0015 °C at 0°C (ethanol) ±0.0015 °C at 25°C (water) ±0.003 °C at 100°C (oil 5012)
Uniformity	Expected to be similar to a standard 7080. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	-80°C, -20°C
Control Probe	PRT
Heaters	500 and 1000 watts
Access Opening	127 x 254 mm (5 x 10 in)
Depth	305 mm (12 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac(± 10%), 50 Hz, 15A
Current Draw (WCS)	12.8 A
Tank Size (LxWxD)	305 x 305 x 305 mm (12 x 12 x 12 in)
Volume	27 liters (7.2 gallons)
Weight	159 kg (350 lb.)
Size (outer dims HxWxD)	1168x 775 x 483 mm (46 x 30.5 x 19 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	1 st = R-507, 2 nd = R-508B
Heating Rate (°C/min)	
Cooling Rate (°C/min)	0.25 (°C/min)
Firmware	2100
Comments:	

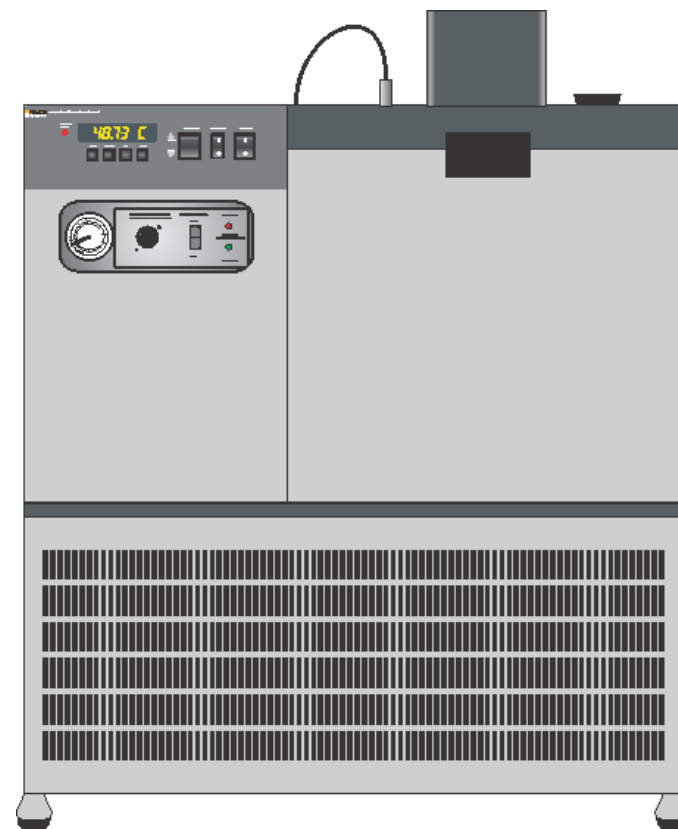


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Concept only. Drawings are not to scale. Minimal detail is shown. All dimensions and specs. are approximate and subject to change by Engineering.

Base Model	7081
Custom Model	7081-25
Type	Refrigerated
Item #	1657536
Custom Description	Making 220V, 50Hz available.
Temperature Range	-80°C to 110°C
Stability	±0.0025 °C at -80°C (ethanol)
	±0.0015 °C at 0°C (ethanol)
	±0.0015 °C at 25°C (water)
	±0.003 °C at 100°C (oil 5012)
Uniformity	Expected to be similar to a standard 7081. (Typical expected performance. Not verified by the factory. Optional testing available at additional cost).
Minimum required Certificate Test Point(s)	-80°C, -20°C
Control Probe	PRT
Heaters	500 and 1000 watts
Access Opening	184 x 305 mm (7.25 x 12 in)
Depth	337 mm (13.25 in)
Wetted Parts	304 Stainless Steel
Mains Power	230 V ac(± 10%), 50 Hz, 15A
Current Draw (WCS)	12.8 A
Tank Size (LxWxD)	356 x 356 x 337 mm (14 x 14 x 13.25 in)
Volume	42 liters (11.2 gallons)
Weight	159 kg (350 lb.)
Size (outer dims HxWxD)	1320 x 775 x 483 mm (52 x 30.5 x 19 in)
Automation	RS-232
Over Current Protection	Fuses
Refrigeration Type (grams)	1 st = R-507, 2 nd = R-508B
Heating Rate (°C/min)	
Cooling Rate (°C/min)	0.25 (°C/min)
Firmware	2100
Comments:	

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Base Model	9118
Custom Model	9FURN-004-256
Type	Furnace
Item #	4724835
Custom Description	Custom 9118 - IR version, 300°C to 1000°C
Temperature Range	300°C to 1000°C
Power Requirements	230 V ac(± 10%), 50/60 Hz, 20A
Heater	4000 watts at 230V ac
Set-point accuracy	+/-5°C
Radial Uniformity (full range)	+/- .5°C
Axial Uniformity (full range)	+/- .25°C
Temperature Stability	+/- .2°C
Stabilization time	3 hours at or below 700°C, 2 hours above 700°C
Heating time	45 minutes
Cooling time	200 minutes
Control Probe	Thermocouple
Display Resolution	0.1°C or °F
Weight	29 kg (63.9 lb.) without IR block
Size (outer dims HxWxD)	400 x 337 x 700 mm (15.7 x 13.3 x 27.6 in)
Computer Interface	RS-232 and USB
Over Current Protection	20A, 250V resettable circuit breaker
Main heater fuse	F 12A, 250V
Zone heater fuse	F 12A, 250V
Heater Bore Diameter	66.68 mm (2.63 in) <i>Note: standard 9118 is 50.8 mm (2.0 in)</i>
Bore Depth	655 mm (25.79 in)
Blackbody Details	216mm (8.50 in) painted Inconel cylinder to 120° Cone in a 90.5mm (7.5 in) block.



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