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MACABRE II

M. L. Griebenow and K. D. Richert

IDAHO NUCLEAR CORPORATION

NATIONAL REACTOR TESTING STATION

IDAHO FALLS, IDAHO

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MACABRE II

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ABSTRACT

MACABRE II was written for the IBM 7040 computer in use at the NRTS. The basic programming language is FORTRAN IV, but some symbolic routines are used in the 7040 version. A version that is programmed in FORTRAN IV for the Univac 1108 is also available. This version contains small symbolic routines for the date, time, and auxiliary storage definitions, and should present no problems in conversion to another computer.

MACABRE II is capable of solving the isothermal hydraulics and nonisothermal hydraulics and heat transfer of most plate-type reactor fuel assemblies cooled by a subcooled fluid in forced convection. It can accommodate two-dimensional, time-dependent (quasi steady state) heat generation rates and hydraulic communication between the parallel coolant channels. In addition, MACABRE II will compute the corrosion of the aluminum-clad heat-transfer surfaces (when present) and can handle partial sloughing of the Boehmite corrosion product. MACABRE II has been employed in MTR, ETR, ATR, and EOCR fuel assembly analysis.

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I. INTRODUCTION

Computer analysis of the steady state hydraulics and heat transfer in test reactors has not been necessary in the past. Cooling has been by single-phase flow through a series of parallel, continuous channels. The flow through each coolant passage must conform to the equation of continuity.

$$\left[\rho_1 V_1 A_1 = \rho_2 V_2 A_2 \right] \quad (1)$$

where the subscripts refer to any two-axial position within a continuous channel. The various forms of energy that must be evaluated are the following:

- (1) Kinetic energy: $\frac{mV^2}{2g_c}$
- (2) Potential energy: $\frac{Zmg}{g_c}$
- (3) Pressure energy: Pv
- (4) Internal energy: UJ
- (5) Thermal energy: qJ
- (6) Mechanical energy: W
- (7) Friction energy: W_f .

Applying the equation of continuity and following the convention that thermal energy is positive if absorbed by the system and that the mechanical and frictional terms are positive when lost from the system, a balance between the two arbitrary axial positions results in the following equation:

$$\left[\frac{m}{2g_c} \Delta(V^2) + \frac{m}{g_c} \Delta(gZ) + J\Delta U + \Delta Pv = qJ - W - W_f \right] \quad (2)$$

Assuming the coolant is a single-phase incompressible fluid and converting to a basis of one pound yields the following:

$$\left[\frac{\Delta(v^2)}{2g_c} + \frac{\Delta(gZ)}{g_c} + \frac{J\Delta U}{m} + \frac{\Delta P}{\rho} = \frac{qJ}{m} - \bar{w} - \bar{w}_f \right] \quad (3)$$

Simultaneous solutions of Equation (1) and (3) are possible for a single coolant channel of known geometry if the thermal energy added (q) and the mechanical energy dissipated ($\bar{w}$) are known and if experimental data are available for the evaluation of the friction term. The mechanical energy term is generally assumed to be zero in a reactor coolant channel. The thermal energy generated in a fuel plate is either evaluated from the total reactor power and the local relative

power or a value is measured in a critical facility. There are considerable data available for evaluating the friction term.

The friction losses are divided into permanent losses due to channel contraction and expansion, at the entrance and exit, and a shear loss at the walls of the coolant channel. These are evaluated from empirical equations

$$K_{ent} \left[\frac{v_{ch}^2 - v_{up}^2}{2g_c} \right]$$

$$K_{exit} \left[\frac{(v_{ch} - v_{LP})^2}{2g_c} \right]$$

and

$$\frac{4fLV^2}{2g_c D}$$

respectively. K_{ent} , K_{exit} , and f must be obtained from experimental data either directly or by analogy to a similar geometry for which there are published data.

Historically, the thermal-hydraulics of testing reactors has been solved by hand, assuming the heat from a given fuel plate is split between the two adjacent channels independent of axial location. This assumes that the difference in the film heat transfer coefficients and in the bulk coolant temperature rise in adjacent channels is small. It has also been assumed that the shear losses within the channel are dependent on the axially averaged bulk coolant temperature. These assumptions, together with one of the heat transfer correlations, allow hand solution of the reactor parameters at a given core pressure drop and power level. A value of the average bulk coolant temperature is assumed, and a flow rate is computed. The computed flow rate is then used to evaluate the film heat transfer coefficient (generally at the hot vertical location) and the resulting heat split and bulk coolant temperature. The computed bulk coolant temperature is then used in place of the assumed value, and the simultaneous solutions are developed through the resulting iterative process. The assumptions used have generally introduced little error since each coolant channel has been heated from both sides, and since they are all about the same size. The bulk-coolant temperature increase across the core has been relatively small, minimizing the differences between adjacent channels.

The evolution of testing reactors has been toward longer fuel sections, smaller coolant channels, and higher core pressure drops. This evolutionary process increased the relative bulk temperature rise across the core (because of longer fuel elements and smaller channels) and the lateral pressure drops resulting from manufacturing irregularities. Early isothermal hydraulic tests of the ATR fuel elements indicated that the lateral pressures developed had become excessive. To relieve these pressures, it has been necessary to vent the element side plates at various locations along the axis. The vents allow the

coolant from one channel to enter another channel equalizing the pressures at this location. The cross flow between channels, permitted at each vent, together with the uneven bulk temperature rise in the critical channels, Number 19 and Number 20 (channel Number 20 is heated from only one side), and this subsequent axial dependence of the heat split have made hand solutions of the fuel element thermal hydraulics impractical.

The MACABRE code has been written to solve simultaneously, on the IBM 7040, Equation (1), Equation (3), and the Dittus-Boelter forced convection heat transfer correlation, with the added requirement that the pressures in all channels be equal at a vent. The potential energy term has been disregarded since it is equal in all channels, at a given mesh point, and since pressure differences are usually measured with instruments (manometers, transducers, etc) that automatically compensate for this term. The equation of continuity applies to an individual channel only between vents. The code computes the heat split between the two coolant channels adjacent to a fuel plate, allowing thermal resistances to both conduction and convection in the direction normal to both the fuel plate and the coolant flow. The axial and azimuthal conduction within the plate have been disregarded. In computing the coolant bulk temperature increase between the mesh points, it has been assumed that the heat split remains unchanged between the mesh points; ie, the bulk rise at j is computed using the average heat source for the two adjacent mesh points, $j-1$ and j ; and the heat split is computed at the upstream mesh point ($j-1$). The pressure losses are computed in the interval between mesh points, $j-1$ and j , based on the bulk temperature at j . The code can also compute the amount of oxide accumulated on the fuel plate over a specified length of time (see Section II-3).

The accuracy of the solution to the simultaneous equations is limited only by the demanded convergence on pressure loss (at those locations where they are to be equal) and the distance between mesh points. As the mesh spacing and demanded convergence approach zero, the solution becomes exact.

The code currently can handle two geometries: the wedge-shaped ATR geometry, in which each plate has a different span, and the rectangular geometry associated with the ETR. The code permits changing any channel thickness at any axial location, requiring only that a mesh point be located at the position of the change. It also permits variation in heating from plate to plate (horizontal peaking) as well as vertically. It permits calculating the axial temperature profile in the nominal hot element or in the hot-spot hot-track element, in which the flow rate can be based either on the azimuthally averaged bulk temperature or on the hot-track bulk temperature.

The principal limitations of the code are a maximum of 19 plates (20 channels) and 64 mesh points (without linking).

II. PROGRAM DESCRIPTION

The code assumes a geometry from the input dimensional parameters. The geometry must be dimensioned according to Figures 1 or 2. The problem is further defined by incorporating a coolant physical property table. The code is capable of evaluating the pressure loss if the flow is known or of evaluating the flow rates if the total pressure loss (demanded pressure loss) is known. The latter case requires estimating the flow rate. The program then solves the pressure loss and corrects the flow rate until the computed pressure loss is sufficiently close (EPSLON) to the demanded pressure loss. These two cases can be solved either isothermally or with the addition of heat.

Fig. 1 Wedge geometry dimensional definition.

Fig. 2 Rectangular geometry dimensional definition.

1. ISOTHERMAL CASE

An isothermal hydraulic problem requires specifying the velocities associated with the upper and lower plenums, the inlet coolant temperature, the demanded pressure loss or coolant flow rate, entrance and exit coefficients for each channel, and an initial estimate of velocity for each channel, in addition to defining the geometry. The hydraulic diameter is computed as two times the channel thickness, and the friction factor is calculated as

$$0.0024 + 0.358 \left(\frac{1}{N_{re}} \right)^{0.437} [a].$$

The calculations start at the upper plenum and progressively sum entrance, exit, and frictional losses and the conversion of pressure to kinetic energy from mesh

[a] This is a correlation of experimental data taken in high-aspect-ratio fuel-element channels.

point to mesh point. The program demands that all channels be at the same pressure at any axial location where there is a vent and at the lower plenum. If they do not balance in the first pass, an internal converging routine guides the iterating process. The degree of convergence required is the input parameter (EPSLON) which is the percentage of the difference in the computed pressure, for a particular channel, from the average of the computed pressures for each channel.

2. NONISOTHERMAL CASE

The hydraulic computations for the nonisothermal cases are the same as for the isothermal cases except that the friction factor changes from mesh point to mesh point due to its temperature dependence and that the velocity changes from mesh point to mesh point due to the temperature dependence of the fluid density. The pressure drop between two mesh points is computed based on the bulk temperature at the downstream mesh point. The bulk temperature is updated at each mesh point. The wall temperature at each mesh point is computed from the updated bulk temperature and the heat flowing through the wall at that mesh point. The film heat transfer coefficient is evaluated from the Dittus-Boelter correlation:

$$\frac{hD}{K} = 0.023 \left(\frac{DV\rho}{\mu} \right)^{0.8} \left(\frac{C_p\mu}{R} \right)^{0.4} .$$

The heat flowing to each heat transfer surface of a fuel plate is a function not only of the total heat produced in the plate but of the resistance to conduction in each direction and the resistance to convection at each surface as influenced by the bulk temperature, coolant velocity, and hydraulic diameter of each of the adjacent coolant channels.

3. TRANSIENT CASE

As reactor technology has progressed, increasing the operating temperatures and the length of the operating cycle in reactors using aluminum clad fuel assemblies has caused the boehmite corrosion product formed and retained on the heat transfer surface to increase to the point that, at the current operating conditions, it represents a significant resistance to heat transfer. Griess[a] has shown that the oxidation rate is a function of the aluminum or the oxide-to-coolant interfacial temperature ($^{\circ}R$), the coolant pH, the contact time (θ), and the thickness of oxide initially present. At heat fluxes between 10^6 and 2×10^6 Btu/hr-ft², the corrosion rate for 1100, 6061 and X-8001 aluminum could be predicted by

$$F = a\theta^P \exp(-b/R) . \quad (4)$$

[a] J. C. Griess et al, Effect of Heat Flux on the Corrosion of Aluminum by Water, Part IV. Tests Relative to the Advanced Test Reactor and Correlation with Previous Results, ORNL 3541 (February 1964).

Below 10^6 Btu/hr-ft², heat flux per second was shown to be a significant variable; and Equation (4) overestimates the oxide thickness.

The following three factors complicate differentiation of Equation (4): (a) The oxidation is a diffusion limited process; ie, the existence of an oxide layer slows the oxidation rate. (b) θ in Equation (4) is the time from which oxidation commenced. (c) R changes throughout the cycle because of burnup, control movement, etc, and "a" changes with pH. The oxide thickness is, therefore, computed by dividing the reactor cycle into quasi steady state time increments and using an artificial time scale as described in footnote [a]. The time (θ) that would have been required to obtain the existing oxide thickness at the current conditions of temperature and pH is computed. The oxide thickness at the end of $\theta_1 + \Delta\theta$ (where $\Delta\theta$ is the length of the current quasi steady state time step) is computed and the difference in thickness is the increase in the current time step ($\Delta\theta$).

Experimental investigations[a] show that the oxide builds up to some thickness and then sloughs off in spots or patches. The removal of the oxide from one of the heat transfer surfaces of a fuel plate causes local hot spots. To permit solving this case, MACABRE II permits the redefinition of the oxide thickness at any mesh point, at any heat transfer surface, and any time step.

4. RESTRICTIONS

The accuracy of the computed results is limited only by the distance between mesh points, the demanded degree of convergence (EPSLON), and the time interval used in the oxide computation. To increase the accuracy of computations, a linking option has been incorporated into the program. This allows increasing the number of mesh points from a maximum of 64 to 64 times the number of links. A link is formed by dividing a fuel element at some axial position where all pressures are equal (such as at a vent). This, in essence, makes two separate hydraulic problems linked together only by the continuity of bulk temperatures for each flow channel and the overall pressure drop.

The code for rectangular geometries has been written to handle elements with more than 19 plates. This requires dividing the element into two or more portions, each of which has 19 plates or less. The element is divided in the center of one of the internal channels (see Figure 2). The division is possible only if it is assumed that the plates on each side of the divided channel produce equal power; ie, the heat entering channel Number 1 (the divided channel) is assumed to be twice the heat entering channel Number 1 from plate Number 1. The correct bulk temperature is computed by doubling the multiplier, CONB, for the channel(s) that is divided. This method allows calculations for cores in which fuel plates of adjacent elements are separated only by a water channel (the external channels are heated from both sides) as well as cores in which the external fuel plates are adjacent to unfueled materials (the external channels are heated from only one side). In the latter case, CONB would be doubled.

III. INPUT DATA

1. STEADY STATE DATA

The input data are divided into seven groups. For a multilink problem, Groups 3, 5, and 6 may be changed from link to link. If a particular data address is referenced after the first link, it must be completely redefined for the link because the referencing wipes out all of the data stored from the preceding link in the referenced address. If the data address is not referenced, it is unchanged from the previous link. All groups other than 3, 5, and 6 are entered in the first link only. The data groups are as follows:

- (1) Physical properties
- (2) Title
- (3) Fixed-point data (all integers)
- (4) Floating-point single-valued data
- (5) Floating-point array data
- (6) Vent indicator
- (7) Thermal profile data.

It is important that all cards have identification information in Columns 73 through 80 as error comments will print only this information to assist the user in locating mistakes.

1.1 Physical Properties

Preceding the data deck for each run, there is a table of the coolant physical properties (limited to 48 entries).

This table is preceded by a card with the number of entries in the table placed in Columns 1 through 2.

The temperature points in the table must be equally spaced, one data point per card. The properties are the following:

- (1) Column 4-8 -- TEMP -- temperature, °F
- (2) Column 13-25 -- RUERO -- density/viscosity, sec/ft²
- (3) Column 26-31 -- CAY -- thermal conductivity, Btu/hr-ft-°F
- (4) Column 37-42 -- Cp -- heat capacity, Btu/lb-°F
- (5) Column 48-53 -- RHO -- density, lb/ft³
- (6) Column 59-67 -- PN3 -- dimensionless Prandtl number raised to the 0.4 power.

1.2 Title

This is the first card of each problem. (It follows the cards listing the physical properties of the coolant.) An "*" must be present in Column 1 of this

card. Columns 2 through 72 are used for title information that is to appear at the top of each page of output.

1.3 Fixed-Point Data

Fixed-point data cards are present for each link. Column 1 contains the number of data items on the card. Column 2, if nonzero, indicates the last card of this group. Columns 9 through 12 contain the address of the first data item on the card, and the data for this address and the next four consecutive locations in storage follow in Columns 14-24, 26-36, 38-48, 50-60, and 62-72 (this is the standard FORTRAN work sheet form). All data items must be right-adjusted.

<u>Address</u>	<u>Item</u>	<u>Definition</u>	(2I1, 6XI4, 5I12, A6, A2)
1	LINK	The link number for this set of data	
2	NDX	The number of mesh points in the link	
3	NO	The number of channels in the element	
4	LAST	The number of the last link in the problem	
5	HEAT	0, if there is no heating in the problem 1, if there is heating in the problem	
6	VERHT	The number of input points for the vertical profile curve	
7	STHEAT	The number of the first mesh point in the first link that has heat	
8	EDHEAT	The number of mesh points in the last link that have no heat	
9	NSTRT	The number of the mesh point for which output printing is to begin	
10	NOPR	The periodicity of the mesh point solutions to be printed in the output (NOPR-1 mesh points are skipped between mesh points printed)	
11	NENO	The last mesh point solution to be printed in the output.	

1.4 Floating-Point Single-Valued Data

The form of input for the floating-point single-valued data is the same as for the preceding data sheet. All data items must have the decimal point on the card.

The card(s) must always be present for the first link of each problem, but are not included in the subsequent link(s).

<u>Address</u>	<u>Item</u>	<u>Definition</u>	(2I1, 6XI4, 5E12.5, A6, A2)
1	THETA	The angle of the fuel element in degrees (wedge geometry only)	
2	WID	Fuel element width in inches (rectangular geometry only)	
3	SP1	The distance from the center of the side channel to the inside of the side plate in inches	
4	SP2	The same as the above for the other side plate	

<u>Address</u>	<u>Item</u>	<u>Definition</u>	(2I1, 6XI4, 5E12.5, A6, A2)
5	CLTH1	The thickness of cladding in plate No. 1 in inches	
6	CLTH	The thickness of cladding in the internal plates (2 through NO-1) in inches	
7	CLTHNO	The thickness of cladding in the final plate in inches	
8	MTTH	The meat or fuel thickness in inches (all plates must have the same thickness)	
9	V1	The velocity in the upper plenum (above the fuel element) in ft/sec	
10	V2	The velocity in the lower plenum (below the fuel element) in ft/sec	
11	TIN	The bulk coolant inlet temperature in °F	
12	DLP	The demanded loss of pressure across the fuel element in psi. If the mass flow (FLOFED) is known, DLP must be input as 0	
13	FLOFED	The coolant flow rate in lb/sec (this parameter must always be greater than zero)	
14	VELS5	The initial velocity estimate for the left side channel (SP1) in ft/sec	
15	VELS6	The same as the above for the right side channel (SP2)	
16	ENK5	The entrance coefficient for the left side channel (SP1), dimensionless	
17	ENK6	The entrance coefficient for the right side channel (SP2)	
18	EXITK5	The exit coefficient for the left side channel (SP1)	
19	EXITK6	The exit coefficient for the right side channel (SP2)	
20	MULF	A multiplier for increasing or decreasing the normal friction factor for handling roughened surfaces	
21	QAVE	The average heat source in Btu/hr-ft ² of plate (1 ft ² of plate normally has 2 ft ² of heat transfer area). This number when multiplied by the local horizontal and vertical peaking factors yield the local heat source	
22	KCL	The thermal conductivity of the cladding material in Btu/hr-ft ² -°F/in	
23	KMT	The thermal conductivity of the meat or fuel material	
24	MULH	A multiplier for increasing or decreasing the normal heat transfer coefficient for handling hot-spot hot-channel calculations or for handling roughened surface heat transfer	
25	EPSLON	The degree of convergence demanded. Computed as the fractional deviation of the total pressure loss in a given channel from the average of the pressure loss in all channels, ie, $\frac{\text{total pressure loss} - \text{average pressure loss}}{\text{average pressure loss}}$	

<u>Address</u>	<u>Item</u>	<u>Definition</u>	(2I1, 6XI4, 5E12.5, A6, A2)
26	KFTH	The thermal conductivity of the oxide layer in Btu/hr, ft ² , °F/in.	
27	PHDP	The pH dependent coefficient in Equation (4), ie, a	
28	TEMPDP	The temperature related constant in Equation (4), ie, b	
29	TIMEDP	The exponent of time in Equation (4), ie, P	
30	TIME	The quasi steady state time increment used in oxide calculations, in hours.	

1.5 Floating-Point Array Data

The floating-point array card(s) must always be present for each link of each problem. If no change is required after the first link, a blank card must be used. Column 1 contains the number of data items on the card. Column 2, if not zero, indicates the last card of this data group. Columns 7 through 10 contain the address of the data item(s) on the card. Columns 11 through 14, 31 through 34, and 51 through 54 contain the plate surface number (when applicable). Columns 15 through 17, 35 through 37, and 55 through 57 contain the plate or channel number that pertains to the data item (when applicable). Columns 18 through 20, 38 through 40, and 58 through 60 contain the mesh point number that pertains to the data item (when applicable). Columns 21 through 30, 41 through 50, and 61 through 70 contain the data items. The decimal point must be on the card. All data items in this group (except P1, address 1, P2, address 1217, and FILMTH address 2617) require only one location, either a plate or channel number or a mesh point number. Only one location number can be specified for these items. If the address is referenced in multilink problems, the data item must be completely redefined for the link since referencing the address removes all previous entries.

<u>Address</u>	<u>Item</u>	<u>Definition</u>	(2I1, 4XI4, 3(4X2I3, E10.5) 2X, A6, A2)
1	P1	The inner radius of each fuel plate (from the same reference as B1 and B2) in inches*	
1217	P2	The outer radius of each fuel plate in inches*	
2433	DX	The length of each mesh element (from J to J+1), in feet	
2497	FW	The fuel withdrawal distance for each fuel plate in inches	
2516	VEL	Initial coolant velocity estimate for each channel in ft/sec	
2536	ENK	Entrance coefficient for each channel	
2556	EXITK	Exit coefficient for each channel	
2576	CONA	A bulk coolant temperature multiplier used for increasing or decreasing the computed bulk temperature. The modified coolant temperature is used only in computing coolant flow rates and/or pressure drops, eg, the velocity in a channel with a high azimuthal peaking factor can be computed based on the average coolant temperature (at the given axial location) while computing the thermal profiles in the hot track	

Address	Item	Definition	(2I1, 4XI4, 3(4X2I3, E10.5) 2X, A6, A2)
2596	CONB	A bulk coolant temperature multiplier (hot channel factor). Used to increase or decrease the computed bulk temperature rise	
2616	B1	The locating dimension for the inner fuel element boundary (must be nonzero) in inches	
2617	FILMTH	The initial thickness of the oxide film in inches -- this term may not be zero	
2680	B2	The locating dimension for the outer fuel element boundary in inches	
2744	SG5	The left side channel (SP1) gap in inches	
2808	SG6	The right side channel (SP2) gap in inches.	

* By setting $P1(I) = P2(I-1)$, MACABRE II assumes that plates 1-1 and I are to be treated as two halves of a single plate.

1.6 Vent Indicator (2I1, 1614, 6XA6, A2)

The vent indicator card must be present for each link in each problem. A blank card must be used if no window is desired in the link. A window location must not be specified as beginning at zero; it must be specified as mesh point No. 1 of the link (zero is an illegal entry and is physically meaningless). Column 1 contains the number of windows specified on the card. Column 2, if nonzero, indicates the last card in this data group. Windows are indicated by a set of numbers indicating the first and last mesh points of the window. As many as eight sets of numbers may be placed on a card in Columns 3 through 72. Columns 3 through 72 are divided into 16 fields of 4 columns each. The integer number must be right-adjusted within the four columns.

1.7 Thermal Profile Data (14F5.3)

Plate- and channel-dependent thermal profile data cards must always be present for the first link of a problem and are not included in subsequent links. Columns 1 through 70 are divided into 14 sections of 5 columns each. Each multiplier is listed continuously, requiring no identification or address, until complete. The decimal points must be present on the data card. These cards must not be present in isothermal-type problems.

1.71 Horizontal Peaking. A series of terms (one number for each plate) that describes the horizontal (radial or plate-to-plate) variation of the thermal flux developed within the element. It is a dimensionless term such that when it is multiplied by the average heat source (QAVE) and the vertical profile, the result is the local source.

1.72 Overlay Specification (24I3). The overlay specification card(s) is used to specify which vertical profile (when it is desired to vary the vertical profile from plate to plate) is to be applied to a given plate. This card(s) must be present for each time step. After the first time step, only those plates whose profiles are to be changed need be specified. If no vertical profile is to be changed, in a particular time step, a blank card must be inserted. This information is entered in groups of three numbers. The first number in each group indicates a profile number (the sequential number of the vertical profile sets to follow). The second

and third numbers denote the first and last plates, in the set of plates, having this profile. Columns 1 through 72 are divided into 8 such groups of numbers, each group consisting of 3 fields of 3 columns each. These numbers must be right adjusted within the three columns.

The end of the overlay specification (for a particular time step) is indicated by the first blank field encountered. However, if the last field of an overlay card contains the last overlay information, a blank card must follow to indicate the end of the overlay specification.

1.73 Vertical Profile. A series of terms describing the vertical variation of the thermal flux developed within the element. It is a dimensionless term such that when it is multiplied by the average heat source (QAVE) and the horizontal peaking term, the result is the local source. The elements of the series must be equally spaced along the axis of the fuel element at one-inch intervals with a limit of 51 values (this limits the element to a maximum of 50 inches). (See Group 3, address 6.)

2. TRANSIENT DATA

The data for the first time step of a transient problem is the same as for a steady state problem. For each succeeding time step, only the cards in Groups 2, 4, and 7 may be changed. These cards must be in the following order:

(1) Title card (Group 2)

A new title card is required for each time step. It is advisable to include the total elapsed time as part of the title.

(2) Floating-point single-valued data (Group 4)

Any data item may be redefined in each time step, if necessary; but usually only the length of the time step (address 30) need be changed. At least one card from this group must be included in each time step. The last time step of a problem is signaled by inserting a negative "time" (address 30).

(3) Thermal profile data (Group 7)

Horizontal peaking cards must be present in each time step. However, only the vertical profiles that are to be changed need be redefined. If no vertical profiles are to be changed, a blank card must be present.

At any time step the oxide thickness may be redefined (to handle sloughing) on either side of any plate at any mesh point. This is accomplished by setting "time" (address 30) to zero, for this time step, and inserting cards, for each link, that specify the mesh points at which the thickness is to be changed and the value of the thickness desired at the specified mesh points. These cards have the same format as Group 5 and follow the thermal profile cards. Blank cards must be inserted for those links in which no change is desired. These cards must not be present if "time" is not zero.

IV. OUTPUT DATA

The output data list the title card followed by the fixed-point data and floating-point single-valued data. Each of the floating-point array data input cards is printed followed by the horizontal peaking and the vertical profiles. The total flow (lb/sec) and the computed pressure drop across the fuel element are printed for each outer iteration as the program converges on a demanded loss of pressure.

The final output is in descriptively headed columns. The mesh points are numbered consecutively for the entire element with no regard to linking. Channel numbers are listed for each data row. The coolant velocity (ft/sec), the total pressure loss (in psid referred to the upper plenum), and the bulk coolant temperature are listed for each channel at each mesh point requested for output. The fuel plate surface and oxide-aluminum interfacial temperatures, oxide film thicknesses, and heat fluxes are tabulated in rows between the coolant channels they form. The first T surface, FILMTH. . . Q/A, etc, printed (reading from left to right) correspond to the side of the fuel plate nearest the point of geometrical reference. The second set of values printed correspond to the other side of the fuel plate. An "*" under the window heading indicates a vent at the listed mesh point in the indicated channel.

After printing the solution, the elapsed time is printed in hours, minutes, and seconds with two digits allowed for each; eg, 001846 is 0 hours 18 minutes and 46 seconds.

V. SPECIAL CASE

The general version of MACABRE II requires that if one channel is vented at a given axial location all channels must be vented. The presence of slots in the neck shim housing, in the ATR, allows channel Number 20 to communicate with the external annulus in the center flux trap. The slots in the neck shim housing are at different axial positions than the side plate vents. To solve this case, a special version of MACABRE II was written. This code allows two channels (in constant hydraulic communication, ie, at each mesh point) for the description of the external annulus of the center flux trap. These two channels may communicate with channel Number 20 in the fuel assembly at any desired axial location, completely independent from the location of the side plate vents. However, because of the removal of core storage for the annulus description, only 18 channels of the assembly may be analyzed; ie, the two special channels are NO + 1 and NO + 2, and they communicate with channel NO where NO must not exceed 18.

The flow areas and hydraulic diameters of the two special channels must be inserted directly as input data. The flow area, in square feet, is inserted for mesh point J in place of P1 (NO + 1, J) and P1 (NO + 2, J) - Address 1. The hydraulic diameters, in feet, are inserted in place of P2 (NO + 1, J) and P2 (NO + 2, J) - Address 1217.

The location of the slots in the center flux trap is indicated in the same manner as the side plate vents (data Group 6) and follow the vent indicator cards. These cards must be present in each link. Only the length of the time step and the horizontal profile may be changed in subsequent time steps.

While this program was written for the solution to a specific problem, the code is versatile enough to handle many problems of interest and has, therefore, been included in this document.

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APPENDIX A NOMENCLATURE

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APPENDIX A -- NOMENCLATURE

- A = Flow area, ft²
- a = Experimental constant
- b = Experimental constant
- B1 = Locating dimension for the inner fuel element boundary (must be nonzero) in inches
- B2 = Locating dimension for the outer fuel element boundary in inches
- C_p = Heat capacity at constant pressure, Btu/(lbs-mass) (°F)
- CLTH = Thickness of cladding in the internal plates (2 through NO-1) in inches
- CLTH1 = Thickness of cladding plate No. 1 in inches
- CLTHNO = Thickness of cladding in the final plate in inches
- CONA = Bulk coolant temperature multiplier used for increasing or decreasing the computed bulk temperature. The modified coolant temperature is used only in computing coolant flow rates and/or pressure drops, eg, the velocity in a channel with a high azimuthal peaking factor can be computed based on the average coolant temperature (at the given axial location) while computing the thermal profiles in the hot track
- CONB = Bulk coolant temperature multiplier (hot channel factor). Used to increase or decrease the computed bulk temperature rise
- D = Hydraulic diameter, ft
- DLP = Demanded loss of pressure across the fuel element in psi. If the mass flow (FLOFED) is known, DLP must be input as 0
- DX = Length of each mesh element (from J to J+1), in feet
- EDHEAT = Number of mesh points in the last link that have no heat
- ENK = Entrance coefficient for each channel
- ENK5 = Entrance coefficient for the left side channel (SP1), dimensionless
- ENK6 = Entrance coefficient for the right side channel (SP2)
- EXITK5 = Exit coefficient for the left side channel (SP1)
- EXITK6 = Exit coefficient for the right side channel (SP2)
- EPSLON = Degree of convergence demanded. Computed as the fractional deviation of the total pressure loss in a given channel from the average of the pressure loss in all channels

EXITK = Exit coefficient for each channel
 f = Dimensionless friction factor
 F = Oxide film thickness, inches
 FILMTH = Initial thickness of the oxide film in inches -- this term may not be zero
 FLOFED = Coolant flow rate in lb/sec (this parameter must always be greater than zero)
 FW = Fuel withdrawal distance for each fuel plate in inches
 g = Gravitational acceleration at given location, ft/sec²
 g_C = Gravitational acceleration standard (ft) (lb-mass/sec²) (lb-force)
 h = Film heat transfer coefficient, Btu/(hr) (ft²) (°F)
 HEAT = 0, if there is no heating in the problem
 1, if there is heating in the problem
 J = Mechanical equivalent of heat (ft) (lb-force)/Btu
 K = Coolant thermal conductivity, Btu/(hr) (ft²) (°F/ft)
 KCL = Thermal conductivity of the cladding material in Btu/hr ft²-°F/in.
 K_{ent} = Dimensionless entrance loss coefficient
 K_{exit} = Dimensionless exit loss coefficient
 KFTH = Thermal conductivity of the oxide layer in Btu/hr, ft², °F/in.
 KMT = Thermal conductivity of the meat or fueled material
 L = Length, ft
 LAST = Number of the last link in the problem
 LINK = Link number for this set of data
 m = Pounds mass, lb-mass
 MTTH = Meat or fuel thickness in inches (all plates must have the same thickness)
 MULF = Multiplier for increasing or decreasing the normal friction factor for handling roughened surfaces

MULH = Multiplier for increasing or decreasing the normal heat transfer coefficient for handling hot-spot hot-channel calculations or for handling roughened surface heat transfer

NDX = Number of mesh points in the link

NENO = Last mesh point solution to be printed in the output

NO = Number of channels in the element

NOPR = Periodicity of the mesh point solutions to be printed in the output (NOPR-1 mesh points are skipped between mesh points printed)

N_{re} = Dimensionless Reynold's number

NSTRT = Number of the mesh point for which output printing is to begin

P = Pressure, lb-force/ft²

p = Experimental constant

P1 = Inner radius of each fuel plate (from the same reference as B1 and B2) in inches

P2 = Outer radius of each fuel plate in inches

PHDP = pH dependent coefficient in Equation (4), ie, a

PN3 = Dimensionless Prandtl number raised to the 0.4 power

q = Heat, Btu

QAVE = Average heat source in Btu/hr-ft² of plate (1 ft² of plate normally has 2 ft² of heat transfer area). This number when multiplied by the local horizontal and vertical peaking factors yield the local heat source.

R = Temperature at coolant interface, degrees Rankine

RHO = Density, lb/ft³

RUERO = Density/viscosity, sec/ft²

SG5 = Left side channel (SP1) gap in inches

SG6 = Right side channel (SP2) gap in inches

SP1 = Distance from the center of the side channel to the inside of the side plate in inches

SP2 = Same as the above for the other side plate

STHEAT = Number of the first mesh point in the first link that has heat

TEMP = Temperature, °F

TEMPDP = Temperature related constant in Equation (4), ie, b

THETA = Angle of the fuel element in degrees (wedge geometry only)

TIME = Quasi steady state time increment used in oxide calculations, in hours

TIMEDP = Exponent of time in Equation (4), ie, P

TIN = Bulk coolant inlet temperature in °F

U = Internal energy, Btu

V = Velocity, ft/sec

v = Volume, ft³

V1 = Velocity in the upper plenum (above the fuel element) in ft/sec

VEL = Initial coolant velocity estimate for each channel in ft/sec

VELS5 = Initial velocity estimate for the left side channel (SP1) in ft/sec

VELS6 = Same as the above for the right side channel (SP2)

VERHT = Number of input points for the vertical profile curve

W = Mechanical energy (ft) (lb = force)

$\bar{w}$ = Mechanical energy per pound mass (ft) (lb-force)/lb-mass

w_f = Frictional energy (ft) (lb-force)

$\bar{w}_f$ = Frictional energy per pound mass (ft) (lb-force)/lb-mass

WID = Fuel element width in inches (rectangular geometry only)

Z = Height above arbitrary reference plane, ft

θ = Time, hours

μ = Coolant viscosity, lb-mass/(ft) (sec)

ρ = Density, lb-mass/ft³.

APPENDIX B
SAMPLE PROBLEM

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APPENDIX B -- SAMPLE PROBLEM

The thermal-hydraulics of a nominal-hot ATR fuel element[a] are to be analyzed. To demonstrate the program capabilities and the input-output:

- (1) Channel Number 20 will be varied, linearly, from 0.063 inch at the top to 0.175 inch at the bottom.
- (2) The coolant velocity within a channel will be assumed to be constant, at any axial plane, and will be computed from the average bulk temperature at this axial location.
- (3) The assembly will have 2-inch-long vents located 8 to 10 inches, 12 to 14 inches, 22 to 24 inches, 26 to 28 inches, and 42 to 44 inches from the top.
- (4) Plate Number 18 will have a localized hot spot at time zero. This hot spot will be handled by the vertical profile terms. The hot spot will not be present at succeeding time steps.
- (5) The decreasing heat generation, with time, due to fuel depletion will be handled by decreasing the horizontal peaking terms as a function of time. It should be noted that axial depletion can be handled by varying the vertical profile with time.
- (6) The fuel plate surfaces will be allowed to oxidize for three days at which time it will be assumed that the oxide will slough off of surface 2, plate 18 from mesh point 100 to mesh point 116 (24 to 27-3/4 inches from the top). The oxidation will then continue to the termination at six days.

1. INPUT

1.1 Physical Properties

The ATR is water cooled so a water properties table precedes the problem. The water properties, density/viscosity, thermal conductivity, heat capacity, density, and the Prandtl number to the 0.4 power, are listed for the range 100 to 570°F in the 10°F intervals (48 entries). The properties table is listed at the end of this appendix.

1.2 Time Zero

1.21 Title. ATR Nominal Hot Assembly, Tapered Channel Number 20 -- Small at Top -- Time Zero

1.22 Fixed-Point Data. The fuel element has been divided into four links. It is divided at the bottom of the second vent, the bottom of the fourth vent, and through the fifth vent. It was divided to enable a reduction in the mesh spacing to 1/4 inch for increased accuracy. The mesh spacing immediately below the

[a] The nominal hot element is an element with nominal dimensions and fuel content running in the hottest position of the reactor core. Fabrication tolerances and other uncertainties have been excluded.

entrance and each vent has been reduced to a negligible distance (0.0001 foot) because this is the region of maximum lateral pressure drops, and a finite mesh spacing would give lateral pressure drops smaller than the actual values by the difference in the friction losses for adjacent channels.

The ATR fuel element has 19 fuel plates (20 channels). The fuel plates are unfueled (unheated) over the top and bottom 3/4-inch intervals. The vertical distribution of power has been measured in the ATR Critical Facility, and 51 equally spaced values will be in the input data. The output will contain solutions for every fourth mesh point, from the first through the 203rd mesh point (4th link -- 23rd mesh point).

The fixed-point data are shown in the input listing at the end of this appendix.

1.23 Floating-Point Single-Valued Data. The ATR fuel element, when in the reactor, has a reproducible geometry (around the fuel annulus) based on 45°. The other physical dimensions are as shown in the input listing at the end of this appendix. The upper and lower plenum velocities have been assumed to be zero (zero values need not be inserted). The thermal hydraulics will be solved for the case of 130°F bulk inlet and at pressure loss of 100 psid. The "FLOFED", "VELS5", and "VELS6" terms are initial guesses only, with the restriction that they be nonzero ("VELS5" and "VELS6" are assumed to be zero if there are no side channels). The entrance and exit coefficients have been experimentally evaluated at 0.5 and 0.7, respectively. The element analyzed has smooth fuel plates so "MULF" is set to unity. "QAVE" has been evaluated from the maximum source (4.37×10^6 Btu/hr-ft²), the maximum relative horizontal peaking (2.42), and the maximum relative vertical peaking (20), all of which were measured in the critical facility^[a]. Nominal (as opposed to hot-spot hot-channel) values for a smooth heat transfer surface are desired so "MULH" is set to unity. The desired convergence is 1/2 percent (EPSLON = 0.005). Experimental values of KFTH, PHDP, TEMP DP, and TIME DP were used. The initial time step was 24 hours.

1.24 Floating-Point Array Data. The physical dimensions (P1, P2, DX, and FW) are as shown in the input listing at the end of this appendix. The velocity estimates are initial guesses only, and any nonzero value will result in the solution. The more accurate estimate results in saving machine-time only. The entrance and exit coefficients have been evaluated experimentally and are as listed. "CONA" values are the ratio of the azimuthal average to local values, for each plate, divided by "CONB". This multiplier adjusts the bulk temperature computed for the hot strip, assuming no mixing, to the average or mixed value. The problem solution will then be the hot-strip bulk and wall temperatures, based on no mixing, as computed from velocities based on complete mixing. This approach was used to be on the safe side since the increase in velocity along the hot strip was unknown. "CONB" has been used to compensate for the unfueled portion of the channel (fuel withdrawal distance). The program calculates the bulk rise based on the entire flow channel heated only from the fuel span. The assumption of no mixing requires a multiplier, $\frac{\text{Total Span}}{\text{Heated Span}}$, to correct the computed bulk rise.

[a] Maximum values need not be used; it is just necessary that all values be taken at the same location. The peaking terms are dimensionless terms relating local power to average power. It must be remembered that a source term is twice the surface heat flux.

"B1" remains constant but "B2" varies linearly along the full length of the element. Incremental steps of 0.001 inch were assumed to approximate the linear variation with sufficient accuracy. "SG5" and "SG6" remain constant over the full length of the element. An initial oxide thickness of 10^{-6} inches was used as being sufficiently close to zero (an illegal entry).

1.25 Vent Indicator. The locations of the vents are incorporated into each link and are located by the first and last mesh point of the vent. The vent indicators are shown in the input listing at the end of this appendix.

1.26 Thermal Profile Data. The thermal profile data are dimensionless terms relating the local source term to the average power. The values used and the overlay card are shown in the input listing at the end of this appendix.

To demonstrate the capabilities of the code, an increase in the local fuel content has been assumed in Plate 18. The increase in local power generation is handled by increasing the 25th and 26th term in the vertical profile (for Plate 18 only).

1.3 Time, 1 Day

1.31 Title. ATR Nominal Hot Assembly, Tapered Channel Number 20 -- Small at Top -- Time, 1 Day.

1.32 Fixed-Point Data. There is no fixed point data except in the first time step.

1.33 Floating-Point Single-Valued Data. Although any term can be redefined, in the sample program only the time step was changed (to 48 hours, ie, the increment from 1 to 3 days).

1.34 Floating-Point Array Data. There is no floating-point array data except in the first time step.

1.35 Vent Indicator. There are no vent indicators except in the first time step.

1.36 Thermal Profile Data. To compensate for burnup at the hot horizontal position and power flattening, the horizontal peaking terms change with time. It has been assumed that the increase in local fuel content in Plate 18 has been burned up. The vertical profile for Plate 18 has, therefore, been changed to the smooth curve used for the other 18 plates.

1.4 Time, 3 Days

1.41 Title. ATR Nominal Hot Assembly, Tapered Channel Number 20 -- Time, 3 Days, Flaking on Plate 18.

1.42 Fixed Point Data. See Section 1.32, above.

1.43 Floating-Point Single-Valued Data. To allow the redefinition of the oxide thickness, in the area of flaking, the time step must be set to zero.

1.44 Floating-Point Array Data. See Section 1.34, above.

1.45 Vent Indicator. See Section 1.35, above.

1.46 Thermal Profile Data. There has been no additional power flattening so the horizontal peaking terms are unchanged. A blank card must be inserted for the overlay specification.

1.47 Oxide Thickness Redefinition. Because flaking is assumed to occur in the second link only, a blank card is inserted for the first link. The oxide thickness in the flaked area is redefined at address 2617, for heat transfer surface 2, plate 18, mesh points (2nd link) 42 through 58. The redefining value is 10^{-6} inches (again assumed to be sufficiently close to zero).

Blank cards must be inserted for links 3 and 4 since they are to remain unchanged.

1.5 Time, 3 Days

1.51 Title. ATR Nominal Hot Assembly, continued from flaking.

1.52 Fixed-Point Data. See Section 1.32, above.

1.53 Floating-Point Single-Valued Data. The time card in the previous time step was zero (to handle flaking). So the oxide thickness, in all areas other than where flaking occurred, is still at the 3-day level. To carry on to any later condition, this time step must calculate the increase in oxide from the 3-day level. The time step (Address 30) is 72 hours.

1.54 Floating-Point Array Data. See Section 1.34, above.

1.55 Vent Indicator. See Section 1.35, above.

1.56 Thermal Profile Data. This time step unit occurs at the same initial time as the previous unit so there is no change in the power level.

1.6 Time, 6 Days

1.61 Title. ATR Nominal Hot Assembly, Tapered channel Number 20 -- Time 6 D (3 days after flaking).

1.62 Fixed-Point Data. See Section 1.32, above.

1.63 Floating-Point Single-Valued Data. This is the last time step unit desired so the time step is negative.

1.64 Floating-Point Array Data. See Section 1.34, above.

1.65 Vent Indicator. See Section 1.35, above.

1.66 Thermal Profile Data. There is additional power flattening by the end of 6 days of operation, so the horizontal peaking terms are again changed.

2. OUTPUT

The sample problem output is listed at the end of the appendix. To save space, some mesh point solutions have been omitted. The output for "ATR Nominal Hot Assembly, Tapered Channel Number 20 -- time 3 days flaking on plate 18" and "ATR Nominal Hot Assembly -- continued from flaking" are the same. It is necessary to resolve the system at three days and use these solutions for computing the oxide thickness at the end of the next incremental time step.

PHYSICAL PROPERTIES TABLE LISTING FOR WATER

(See Section III-1.)

48

100.0	0.135000E	060.3641	0.9976	61.996	1.8283332	1
110.0	0.147000E	060.3689	0.9976	61.943	1.7445781	2
120.0	0.162000E	060.3733	0.9977	61.729	1.6711017	3
130.0	0.177000E	060.3772	0.9981	61.539	1.6062720	4
140.0	0.192000E	060.3810	0.9988	61.387	1.5476990	5
150.0	0.210000E	060.3836	0.9996	61.199	1.4965810	6
160.0	0.225000E	060.3861	1.0004	61.013	1.4450055	7
170.0	0.241000E	060.3884	1.0012	60.790	1.4026275	8
180.0	0.260000E	060.3905	1.0022	60.569	1.3582364	9
190.0	0.275000E	060.3923	1.0034	60.350	1.3221429	10
200.0	0.295000E	060.3935	1.0047	60.132	1.2872506	11
210.0	0.310000E	060.3943	1.0061	59.980	1.2622378	12
220.0	0.328000E	060.3950	1.0079	59.630	1.2335441	13
230.0	0.345000E	060.3957	1.0097	59.382	1.2038124	14
240.0	0.360000E	060.3961	1.0119	59.102	1.1823265	15
250.0	0.377000E	060.3964	1.0142	58.824	1.1602384	16
260.0	0.395000E	060.3964	1.0165	58.514	1.1407905	17
270.0	0.410000E	060.3962	1.0191	58.241	1.1208323	18
280.0	0.426000E	060.3959	1.0222	57.937	1.1003262	19
290.0	0.442000E	060.3955	1.0225	57.637	1.0827892	20
300.0	0.458000E	060.3952	1.0289	57.307	1.0684466	21
310.0	0.470000E	060.3948	1.0322	56.980	1.0538091	22
320.0	0.485000E	060.3944	1.0354	56.657	1.0388602	23
330.0	0.500000E	060.3933	1.0404	56.306	1.0274330	24
340.0	0.513000E	060.3921	1.0455	55.960	1.0158120	25
350.0	0.528000E	060.3906	1.0511	55.586	1.0079525	26
360.0	0.542000E	060.3891	1.0564	55.218	0.9971934	27
370.0	0.550000E	060.3876	1.0614	54.855	0.9891112	28
380.0	0.570000E	060.3857	1.0665	54.466	0.9821621	29
390.0	0.580000E	060.3834	1.0728	54.054	0.9759685	30
400.0	0.592000E	060.3809	1.0794	53.648	0.9701344	31
410.0	0.605000E	060.3783	1.0861	53.248	0.9642470	32
420.0	0.617000E	060.3753	1.0941	52.798	0.9600085	33
430.0	0.627000E	060.3724	1.1023	52.356	0.9561697	34
440.0	0.640000E	060.3693	1.1114	51.921	0.9527379	35
450.0	0.650000E	060.3670	1.1212	51.546	0.9484220	36
460.0	0.657000E	060.3640	1.1319	51.020	0.9462529	37
470.0	0.665000E	060.3608	1.1431	50.505	0.9445123	38
480.0	0.675000E	060.3575	1.1545	50.000	0.9427669	39
490.0	0.680000E	060.3535	1.1698	49.505	0.9436402	40
500.0	0.688000E	060.3494	1.1861	49.020	0.9458182	41
510.0	0.693000E	060.3446	1.2100	48.309	0.9501519	42
520.0	0.699000E	060.3397	1.2300	47.847	0.9544562	43
530.0	0.708000E	060.3348	1.2500	47.170	0.9587314	44
540.0	0.714000E	060.3298	1.2800	46.512	0.9587314	45
550.0	0.720000E	060.3246	1.3100	45.872	0.9713889	46
560.0	0.724800E	060.3189	1.3400	45.249	0.9796917	47
570.0	0.725000E	060.3130	1.3700	44.643	0.9878902	48

SAMPLE INPUT PROBLEM

WATR	NOM	HOT	ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO							
5	1	1	58	20	4	1	10			
5	6	51	4	3	1	4	20			
11	11	203					30			
5	1	45.0	0.251	0.251	0.030		40			
3	6	0.015	0.040	0.020			50			
5	11	130.0	100.0	100.0	45.0	45.0	60			
5	16	0.50	0.50	0.70	0.70	1.0	70			
5	21	9.02	E+4	1200.0	1.0	0.005	80			
51	26	15.6	443.0	8290.0	0.778	24.0	90			
3	1	1	13.015	2	13.173	3	13.301			
3	1	4	13.429	5	13.557	6	13.685			
3	1	7	13.813	8	13.941	9	14.069			
3	1	10	14.197	11	14.325	12	14.453			
3	1	13	14.581	14	14.709	15	14.837			
3	1	16	14.965	17	15.093	18	15.221			
1	1	19	15.349				160			
3	1217	1	13.095	2	13.223	3	13.351			
3	1217	4	13.479	5	13.607	6	13.735			
3	1217	7	13.863	8	13.991	9	14.119			
3	1217	10	14.247	11	14.375	12	14.503			
3	1217	13	14.631	14	14.759	15	14.887			
3	1217	16	15.015	17	15.143	18	15.271			
1	1217	19	15.449				230			
3	2433		10.0208	410.0001		420.0208	240			
1	2433		580.0001				250			
3	2497	1	0.184	2	0.083	19	0.184			
2	2516	1	45.0	20	70.0		260			
1	2536	1	0.5				270			
3	2556	1	0.9	2	0.7	20	0.9			
3	2576	1	0.796	2	0.840	3	0.871			
3	2576	4	0.866	5	0.865	6	0.872			
3	2576	7	0.876	8	0.878	9	0.880			
3	2576	10	0.874	11	0.854	12	0.832			
3	2576	13	0.818	14	0.814	15	0.807			
3	2576	16	0.784	17	0.760	18	0.742			
2	2576	19	0.709	20	0.685		360			
3	2596	1	1.285	2	1.210	3	1.133			
3	2596	4	1.130	5	1.125	6	1.121			
3	2596	7	1.118	8	1.115	9	1.112			
3	2596	10	1.109	11	1.107	12	1.103			
3	2596	13	1.101	14	1.100	15	1.098			
3	2596	16	1.096	17	1.094	18	1.093			
2	2596	19	1.125	20	1.155		430			
1	2616		12.907				440			
1	2617	1	11.0	F=6			450			
3	2680		15.512	35.513		55.514	460			
3	2680		75.515	95.516		115.517	470			
3	2680		135.518	155.519		175.521	480			
3	2680		195.522	215.523		235.524	490			
3	2680		255.526	275.527		295.528	500			
3	2680		315.529	335.530		355.531	510			
3	2680		375.532	395.534		425.535	520			
3	2680		445.536	465.537		485.538	530			
3	2680		505.539	525.540		545.541	540			
2	2680		565.542	575.543			550			
1	2744		10.036				560			
11	2808		10.036				570			
21	33	41	50	58			580			
1.6	1.44	1.34	1.26	1.20	1.15	1.12	590			
1.41	1.58	1.79	2.07	2.42			600			
1	1	17	2	18	18	3	610			
2.5	3.5	4.6	5.7	6.9	7.9	8.9	620			
16.2	16.9	17.6	18.2	18.7	19.1	19.5	630			
19.6	19.3	19.0	18.6	18.2	17.7	17.1	640			
10.4	9.4	8.4	7.4	6.3	5.3	4.2	650			
2.5	3.5	4.6	5.7	6.9	7.9	8.9	660			
16.2	16.9	17.6	18.2	18.7	19.1	19.5	670			
19.6	19.3	19.0	18.6	18.2	17.7	17.1	680			
10.4	9.4	8.4	7.4	6.3	5.3	4.2	690			
							700			

2.5	3.5	4.6	5.7	6.9	7.9	8.9	10.0	10.9	12.0	12.8	13.7	14.6	15.5	710
16.2	16.9	17.6	18.2	18.7	19.1	19.5	19.7	19.9	20.0	20.0	20.0	19.9	19.8	720
19.6	19.3	19.0	18.6	18.2	17.7	17.1	16.4	15.7	15.0	14.1	13.2	12.4	11.4	730
10.4	9.4	8.4	7.4	6.3	5.3	4.2	3.2	2.2						740
21		1		2		58								750
3	2433			10.0208			410.0001			420.0208				760
1	2433			580.0001										770
3	2680			15.543			45.545			65.546				780
3	2680			85.547			105.548			125.549				790
3	2680			145.550			165.551			185.553				800
3	2680			205.554			225.555			245.556				810
3	2680			265.557			285.558			305.559				820
3	2680			325.560			345.562			365.563				830
3	2680			385.564			405.565			425.566				840
3	2680			455.567			475.569			495.570				850
3	2680			515.571			535.572			555.573				860
21	2680			575.574			585.575							870
21	33	41	50	58										880
21		1		3		64								890
1	2433			10.0208										900
3	2680			15.575			35.576			55.577				910
3	2680			65.578			85.579			105.580				920
3	2680			125.581			145.582			165.583				930
3	2680			185.584			205.585			215.586				940
3	2680			225.587			245.588			265.589				950
3	2680			285.590			305.591			325.592				960
3	2680			345.593			365.594			385.595				970
3	2680			395.596			405.597			425.598				980
3	2680			445.599			465.600			485.601				990
3	2680			495.602			505.603			525.604				1000
3	2680			545.605			565.606			585.607				1010
31	2680			605.608			625.609			645.610				1020
11	57	64												1030
21		1		4		23								1040
2	2433			10.0001			20.0208							1050
3	2680			15.611			35.612			55.613				1060
3	2680			75.614			95.615			115.616				1070
3	2680			135.617			155.618			175.619				1080
3	2680			185.620			195.621			215.622				1090
11	2680			235.623										1100
11	1	1												1110
*ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME 1 DAY														1120
11	30	48.0												1130
1.5	1.4	1.3	1.2	1.18	1.05	1.02	1.01	1.01	1.03	1.08	1.12	1.19	1.24	1140
1.31	1.48	1.69	1.97	2.32										1150
1	18	18												1160
2.5	3.5	4.6	5.7	6.9	7.9	8.9	10.0	10.9	12.0	12.8	13.7	14.6	15.5	1170
16.2	16.9	17.6	18.2	18.7	19.1	19.5	19.7	19.9	20.0	20.0	20.0	19.9	19.8	1180
19.6	19.3	19.0	18.6	18.2	17.7	17.1	16.4	15.7	15.0	14.1	13.2	12.4	11.4	1190
10.4	9.4	8.4	7.4	6.3	5.3	4.2	3.2	2.2						1200
*ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-TIME 3 DAYS FLAKEING ON PL18														1210
11	30	0.0												1220
1.5	1.4	1.3	1.2	1.1	1.05	1.02	1.01	1.01	1.03	1.08	1.12	1.19	1.24	1230
1.31	1.48	1.69	1.97	2.32										1240
														1250
														1260
3	2617	2	18	421.0	F-6	2	18	431.0	E-6	2	18	441.0	E-6	1270
3	2617	2	18	451.0	F-6	2	18	461.0	E-6	2	18	471.0	E-6	1280
3	2617	2	18	481.0	F-6	2	18	491.0	E-6	2	18	501.0	E-6	1290
3	2617	2	18	511.0	F-6	2	18	521.0	E-6	2	18	531.0	E-6	1300
3	2617	2	18	541.0	F-6	2	18	551.0	E-6	2	18	561.0	F-6	1310
21	2617	2	18	571.0	F-6	2	18	581.0	F-6					1320
														1330
														1340
*ATR NOM HOT ASSEMBLY-CONTINUED FROM FLAKEING														1350
11	30	72.0												1360
1.5	1.4	1.3	1.2	1.1	1.05	1.02	1.01	1.01	1.03	1.08	1.12	1.19	1.24	1370
1.31	1.48	1.69	1.97	2.32										1380
														1390
*ATR NOM HOT ASSEMBLY-TAPERED CHAN NO 20-TIME 6 D (3 DAYS AFTER FLAKEING														1400
11	30	-0.01												1410
1.4	1.3	1.2	1.1	1.0	0.95	0.92	0.91	0.91	0.93	0.98	1.02	1.09	1.14	1420
1.21	1.38	1.59	1.87	2.22										1430
														1440

SAMPLE PROBLEM OUTPUT LISTING

ATR NOM HOT ASSEMBLY-TAPEWED CHANNEL NO 20-SHALL AT TOP-TIME ZERO

3/08/67

INTEGER ARRAY

1 58 20 4 1 51 4 3 1 4 203

FLOATING POINT SINGLE VALUE ARRAY

4,5000E-01	-0,	2,5100E-01	2,5100E-01	3,0000E-02	1,5000E-02	4,0000E-02	2,0000E-02
0,	0,	1,3000E-02	1,0000E-02	1,0000E-02	4,5000E-01	4,5000E-01	5,0000E-01
5,0000E-01	7,0000E-01	7,0000E-01	1,0000E-00	9,0200E-04	1,2000E-03	1,2000E-03	1,0000E-00
5,0000E-03	1,5600E-01	4,4300E-02	8,2900E-03	7,7800E-01	2,4000E-01		

FLOATING POINT ARRAY DATA

3*	1	-0	1	1	3,0150E 00	-0	2	1	3,1730E 00	-0	3	1	3,3010E 00	110
3*	1	-0	4	1	3,4290E 00	-0	5	1	3,5570E 00	-0	6	1	3,6850E 00	120
3*	1	-0	7	1	3,8130E 00	-0	8	1	3,9410E 00	-0	9	1	4,0690E 00	130
3*	1	-0	10	1	4,1970E 00	-0	11	1	4,3250E 00	-0	12	1	4,4530E 00	140
3*	1	-0	13	1	4,5810E 00	-0	14	1	4,7090E 00	-0	15	1	4,8370E 00	150
3*	1	-0	16	1	4,9650E 00	-0	17	1	5,0930E 00	-0	18	1	5,2210E 00	160
1*	1	-0	19	1	5,3490E 00	-0	-0	-0	-0,	-0	-0	-0	-0,	170
3*	1217	-0	1	1	3,0950E 00	-0	2	1	3,2230E 00	-0	3	1	3,3510E 00	180
3*	1217	-0	4	1	3,4790E 00	-0	5	1	3,6070E 00	-0	6	1	3,7350E 00	190
3*	1217	-0	7	1	3,8630E 00	-0	8	1	3,9910E 00	-0	9	1	4,1190E 00	200
3*	1217	-0	10	1	4,2470E 00	-0	11	1	4,3750E 00	-0	12	1	4,5030E 00	210
3*	1217	-0	13	1	4,6310E 00	-0	14	1	4,7590E 00	-0	15	1	4,8870E 00	220
3*	1217	-0	16	1	5,0150E 00	-0	17	1	5,1430E 00	-0	18	1	5,2710E 00	230
1*	1217	-0	19	1	5,4490E 00	-0	-0	-0	-0,	-0	-0	-0	-0,	240
3*	2433	-0	-0	1	2,0800E-02	-0	-0	41	1,0000E-04	-0	-0	42	2,0800E-02	250
1*	2433	-0	-0	58	1,0000E-04	-0	-0	-0	-0,	-0	-0	-0	-0,	260
3*	2497	-0	1	-0	1,8400E-01	-0	2	-0	8,3000E-02	-0	19	-0	1,8400E-01	270
2*	2516	-0	1	-0	4,5000E 01	-0	20	-0	7,0000E 01	-0	-0	-0	-0,	280
1*	2536	-0	1	-0	5,0000E-01	-0	-0	-0	-0,	-0	-0	-0	-0,	290
3*	2556	-0	1	-0	4,0000E-01	-0	2	-0	7,0000E-01	-0	20	-0	9,0000E-01	300
3*	2576	-0	1	-0	7,9600E-01	-0	2	-0	8,4000E-01	-0	3	-0	8,7100E-01	310
3*	2576	-0	4	-0	8,6600E-01	-0	5	-0	8,6500E-01	-0	6	-0	8,7200E-01	320
3*	2576	-0	7	-0	8,7600E-01	-0	8	-0	8,7800E-01	-0	9	-0	8,8000E-01	330
3*	2576	-0	10	-0	8,7400E-01	-0	11	-0	8,5400E-01	-0	12	-0	8,3200E-01	340
3*	2576	-0	13	-0	8,1600E-01	-0	14	-0	8,1400E-01	-0	15	-0	8,0700E-01	350
3*	2576	-0	16	-0	7,8400E-01	-0	17	-0	7,6000E-01	-0	18	-0	7,4200E-01	360
2*	2576	-0	19	-0	7,0900E-01	-0	20	-0	6,8500E-01	-0	-0	-0	-0,	370
3*	2596	-0	1	-0	1,2850E 00	-0	2	-0	1,2100E 00	-0	3	-0	1,1330E 00	380
3*	2596	-0	4	-0	1,1300E 00	-0	5	-0	1,1250E 00	-0	6	-0	1,1210E 00	390
3*	2596	-0	7	-0	1,1180E 00	-0	8	-0	1,1150E 00	-0	9	-0	1,1120E 00	400
3*	2596	-0	10	-0	1,1090E 00	-0	11	-0	1,1070E 00	-0	12	-0	1,1030E 00	410
3*	2596	-0	13	-0	1,1010E 00	-0	14	-0	1,1000E 00	-0	15	-0	1,0980E 00	420
3*	2596	-0	16	-0	1,0960E 00	-0	17	-0	1,0940E 00	-0	18	-0	1,0930E 00	430
2*	2596	-0	19	-0	1,1250E 00	-0	20	-0	1,1550E 00	-0	-0	-0	-0,	440
1*	2616	-0	-0	1	2,9070E 00	-0	-0	-0	-0,	-0	-0	-0	-0,	450
1*	2617	1	1	1	1,0000E-06	-0	-0	-0	-0,	-0	-0	-0	-0,	460
3*	2680	-0	-0	1	5,5120E 00	-0	-0	3	5,5130E 00	-0	-0	5	5,5140E 00	470
3*	2680	-0	-0	7	5,5150E 00	-0	-0	9	5,5160E 00	-0	-0	11	5,5170E 00	480
3*	2680	-0	-0	13	5,5180E 00	-0	-0	15	5,5190E 00	-0	-0	17	5,5210E 00	490
3*	2680	-0	-0	19	5,5220E 00	-0	-0	21	5,5230E 00	-0	-0	23	5,5240E 00	500
3*	2680	-0	-0	25	5,5260E 00	-0	-0	27	5,5270E 00	-0	-0	29	5,5280E 00	510
3*	2680	-0	-0	31	5,5290E 00	-0	-0	33	5,5300E 00	-0	-0	35	5,5310E 00	520
3*	2680	-0	-0	37	5,5320E 00	-0	-0	39	5,5340E 00	-0	-0	42	5,5350E 00	530
3*	2680	-0	-0	44	5,5360E 00	-0	-0	46	5,5370E 00	-0	-0	48	5,5380E 00	540
3*	2680	-0	-0	50	5,5390E 00	-0	-0	52	5,5400E 00	-0	-0	54	5,5410E 00	550

2*	2680	-0	-0	56	5.5420E-00	-0	-0	57	5.5430E-00	-0	-0	-0	-0	560
1*	2744	-0	-0	1	5.5000E-02	-0	-0	-0	-0	-0	-0	-0	-0	570
11	2808	-0	-0	1	5.6000E-02	-0	-0	-0	-0	-0	-0	-0	-0	580

HORIZONTAL PEAKING

1.60	1.44	1.34	1.26	1.20	1.15	1.12	1.11	1.11	1.13	1.18	1.22	1.29	1.34
1.41	1.58	1.79	2.07	2.42									

PLATE NO.
VP PROFILE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3

VERTICAL PEAKING FOR PROFILE 1

2.50	3.50	4.60	5.70	6.90	7.90	8.90	10.00	10.90	12.00	12.80	13.70	14.60	15.50
16.20	16.90	17.60	18.20	18.70	19.10	19.50	19.70	19.90	20.00	20.00	20.00	19.90	19.80
19.60	19.30	19.00	18.60	18.20	17.70	17.10	16.40	15.70	15.00	14.10	13.20	12.40	11.40
10.40	9.40	8.40	7.40	6.30	5.30	4.20	3.20	2.20					

VERTICAL PEAKING FOR PROFILE 2

2.50	3.50	4.60	5.70	6.90	7.90	8.90	10.00	10.90	12.00	12.80	13.70	14.60	15.50
16.20	16.90	17.60	18.20	18.70	19.10	19.50	19.70	19.90	20.00	20.00	20.00	19.90	19.80
19.60	19.30	19.00	18.60	18.20	17.70	17.10	16.40	15.70	15.00	14.10	13.20	12.40	11.40
10.40	9.40	8.40	7.40	6.30	5.30	4.20	3.20	2.20					

VERTICAL PEAKING FOR PROFILE 3

2.50	3.50	4.60	5.70	6.90	7.90	8.90	10.00	10.90	12.00	12.80	13.70	14.60	15.50
16.20	16.90	17.60	18.20	18.70	19.10	19.50	19.70	19.90	20.00	20.00	20.00	19.90	19.80
19.60	19.30	19.00	18.60	18.20	17.70	17.10	16.40	15.70	15.00	14.10	13.20	12.40	11.40
10.40	9.40	8.40	7.40	6.30	5.30	4.20	3.20	2.20					

INTEGER ARRAY

2	50	20	4	1	51	4	3	1	4	203
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FLOATING POINT ARRAY DATA

3*	2433	-0	-0	1	2.0800E-02	-0	-0	41	1.0000E-04	-0	-0	42	2.0800E-02	760
1*	2433	-0	-0	58	1.0000E-04	-0	-0	-0	-0	-0	-0	-0	-0	770
3*	2680	-0	-0	1	5.5430E-00	-0	-0	4	5.5430E-00	-0	-0	6	5.5460E-00	780
3*	2680	-0	-0	8	5.5470E-00	-0	-0	10	5.5480E-00	-0	-0	12	5.5490E-00	790
3*	2680	-0	-0	14	5.5500E-00	-0	-0	16	5.5510E-00	-0	-0	18	5.5530E-00	800
3*	2680	-0	-0	20	5.5540E-00	-0	-0	22	5.5550E-00	-0	-0	24	5.5560E-00	810
3*	2680	-0	-0	26	5.5570E-00	-0	-0	28	5.5580E-00	-0	-0	30	5.5590E-00	820
3*	2680	-0	-0	32	5.5600E-00	-0	-0	34	5.5620E-00	-0	-0	36	5.5630E-00	830
3*	2680	-0	-0	38	5.5640E-00	-0	-0	40	5.5650E-00	-0	-0	42	5.5660E-00	840
3*	2680	-0	-0	45	5.5670E-00	-0	-0	47	5.5690E-00	-0	-0	49	5.5700E-00	850
3*	2680	-0	-0	51	5.5710E-00	-0	-0	53	5.5720E-00	-0	-0	55	5.5730E-00	860
21	2680	-0	-0	57	5.5740E-00	-0	-0	58	5.5750E-00	-0	-0	-0	-0	870

INTEGER ARRAY

3	64	20	4	1	51	4	3	1	4	203
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FLOATING POINT ARRAY DATA

1*	2433	-0	-0	1	2.0800E-02	-0	-0	-0	-0	-0	-0	-0	-0	900
3*	2680	-0	-0	1	5.5750E-00	-0	-0	3	5.5760E-00	-0	-0	5	5.5770E-00	910
3*	2680	-0	-0	6	5.5780E-00	-0	-0	8	5.5790E-00	-0	-0	10	5.5800E-00	920
3*	2680	-0	-0	12	5.5810E-00	-0	-0	14	5.5820E-00	-0	-0	16	5.5830E-00	930
3*	2680	-0	-0	18	5.5840E-00	-0	-0	20	5.5850E-00	-0	-0	21	5.5860E-00	940
3*	2680	-0	-0	22	5.5870E-00	-0	-0	24	5.5880E-00	-0	-0	26	5.5890E-00	950
3*	2680	-0	-0	28	5.5900E-00	-0	-0	30	5.5910E-00	-0	-0	32	5.5920E-00	960
3*	2680	-0	-0	34	5.5930E-00	-0	-0	36	5.5940E-00	-0	-0	38	5.5950E-00	970
3*	2680	-0	-0	39	5.5960E-00	-0	-0	40	5.5970E-00	-0	-0	42	5.5980E-00	980
3*	2680	-0	-0	44	5.5990E-00	-0	-0	46	5.6000E-00	-0	-0	48	5.6010E-00	990
3*	2680	-0	-0	49	5.6020E-00	-0	-0	50	5.6030E-00	-0	-0	52	5.6040E-00	1000
3*	2680	-0	-0	54	5.6050E-00	-0	-0	56	5.6060E-00	-0	-0	58	5.6070E-00	1010
31	2680	-0	-0	60	5.6080E-00	-0	-0	62	5.6090E-00	-0	-0	64	5.6100E-00	1020

INTEGER ARRAY

4	23	20	4	1	51	4	3	1	4	203
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FLOATING POINT ARRAY DATA

2*	2433	-0	-0	1	1.0000E-04	-0	-0	2	2.0800E-02	-0	-0	-0	-0	1050
3*	2680	-0	-0	1	5.6110E-00	-0	-0	3	5.6120E-00	-0	-0	5	5.6130E-00	1060
3*	2680	-0	-0	7	5.6140E-00	-0	-0	9	5.6150E-00	-0	-0	11	5.6160E-00	1070
3*	2680	-0	-0	13	5.6170E-00	-0	-0	15	5.6180E-00	-0	-0	17	5.6190E-00	1080
3*	2680	-0	-0	18	5.6200E-00	-0	-0	19	5.6210E-00	-0	-0	21	5.6220E-00	1090
11	2680	-0	-0	23	5.6230E-00	-0	-0	-0	-0	-0	-0	-0	-0	1100

FLOFED= 101.65676 LBS./SEC, AVEPL= 97.08787
FLOFED= 101.00212 LBS./SEC, AVEPL= 100.09674

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/06/67

MESH POINT = 1

DX = 0.00000 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	U / A BTU/HR*FT2	U / A BTU/HR*FT2	WINDOW
1	48.70 52.98	23.62 27.95	130.0									
2	49.54	24.44	130.0	130.0	1.000E-06	130.0	130.0	1.000E+06	130.0	0.	0.	
3	49.54	24.44	130.0	130.0	1.000E-06	130.0	130.0	1.000E+06	130.0	0.	0.	
4	49.54	24.43	130.0	130.0	1.000E-06	130.0	130.0	1.000E+06	130.0	0.	0.	
5	49.54	24.43	130.0	130.0	1.000E-06	130.0	130.0	1.000E+06	130.0	0.	0.	
6	49.54	24.43	130.0	130.0	1.000E-06	130.0	130.0	1.000E+06	130.0	0.	0.	
7	49.54	24.43	130.0	130.0	1.000E-06	130.0	130.0	1.000E+06	130.0	0.	0.	
8	49.54	24.43	130.0	130.0	1.000E-06	130.0	130.0	1.000E+06	130.0	0.	0.	
9	49.54	24.43	130.0	130.0	1.000E-06	130.0	130.0	1.000E+06	130.0	0.	0.	
10	49.54	24.43	130.0	130.0	1.000E-06	130.0	130.0	1.000E+06	130.0	0.	0.	
11	49.54	24.43	130.0	130.0	1.000E-06	130.0	130.0	1.000E+06	130.0	0.	0.	
12	49.54	24.43	130.0	130.0	1.000E-06	130.0	130.0	1.000E+06	130.0	0.	0.	
13	49.54	24.43	130.0	130.0	1.000E-06	130.0	130.0	1.000E+06	130.0	0.	0.	
14	49.54	24.43	130.0	130.0	1.000E-06	130.0	130.0	1.000E+06	130.0	0.	0.	
15	49.54	24.43	130.0	130.0	1.000E-06	130.0	130.0	1.000E+06	130.0	0.	0.	
16	49.54	24.44	130.0	130.0	1.000E+06	130.0	130.0	1.000E+06	130.0	0.	0.	
17	49.54	24.44	130.0	130.0	1.000E+06	130.0	130.0	1.000E+06	130.0	0.	0.	
18	49.54	24.44	130.0	130.0	1.000E+06	130.0	130.0	1.000E+06	130.0	0.	0.	
19	49.54	24.44	130.0	130.0	1.000E+06	130.0	130.0	1.000E+06	130.0	0.	0.	
20	55.68 48.70	30.67 23.62	130.0									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/06/67

MESH POINT = 5

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	U / A BTU/HR*FT2	U / A BTU/HR*FT2	WINDOW
1	48.66 52.98	25.64 29.41	130.1									
2	49.54	26.36	130.1	151.4	1.000E-06	151.5	151.4	1.000E+06	151.4	2.5178E 05	2.5315E 05	
3	49.54	26.36	130.1	149.2	1.000E-06	149.2	149.2	1.000E+06	149.2	2.2716E 05	2.2726E 05	
4	49.54	26.36	130.1	147.9	1.000E-06	147.9	147.9	1.000E+06	147.9	2.1140E 05	2.1148E 05	
5	49.54	26.35	130.1	146.8	1.000E-06	146.8	146.8	1.000E+06	146.8	1.9878E 05	1.9804E 05	
6	49.54	26.35	130.1	146.0	1.000E-06	146.0	146.0	1.000E+06	146.0	1.8932E 05	1.8937E 05	
7	49.54	26.35	130.1	145.3	1.000E-06	145.4	145.4	1.000E+06	145.3	1.8144E 05	1.8147E 05	
8	49.54	26.35	130.1	144.9	1.000E-06	145.0	145.0	1.000E+06	144.9	1.7671E 05	1.7673E 05	
9	49.54	26.35	130.1	144.8	1.000E-06	144.8	144.8	1.000E+06	144.8	1.7514E 05	1.7514E 05	
10	49.54	26.35	130.1	144.8	1.000E-06	144.8	144.8	1.000E+06	144.8	1.7515E 05	1.7514E 05	
11	49.54	26.35	130.1	145.1	1.000E-06	145.1	145.1	1.000E+06	145.1	1.7832E 05	1.7829E 05	
12	49.54	26.35	130.1	145.7	1.000E-06	145.8	145.8	1.000E+06	145.7	1.8622E 05	1.8618E 05	
13	49.54	26.35	130.1	146.3	1.000E-06	146.3	146.3	1.000E+06	146.3	1.9253E 05	1.9248E 05	
14	49.54	26.35	130.1	147.2	1.000E-06	147.2	147.2	1.000E+06	147.2	2.0357E 05	2.0352E 05	
15	49.54	26.36	130.1	147.9	1.000E-06	147.9	147.9	1.000E+06	147.9	2.1146E 05	2.1142E 05	
16	49.54	26.36	130.1	148.8	1.000E-06	148.8	148.8	1.000E+06	148.8	2.2255E 05	2.2242E 05	
17	49.54	26.36	130.2	151.1	1.000E-06	151.1	151.1	1.000E+06	151.1	2.4939E 05	2.4924E 05	
18	49.54	26.36	130.2	153.9	1.000E-06	153.9	153.9	1.000E+06	153.9	2.8254E 05	2.8234E 05	
19	49.54	26.36	130.2	157.6	1.000E-06	157.6	157.6	1.000E+06	157.6	3.2672E 05	3.2652E 05	
20	53.96 48.66	32.54 25.64	130.1	161.1	1.000E-06	161.2	160.0	1.000E+06	160.0	3.6844E 05	3.9525E 05	

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20=SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 9

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
	48.63 52.98	27.67 30.88	130.3									
1			130.3	158.5	1.000E-06	158.5	158.6	1.000E-06	158.5	3.3230E 05	3.3109E 05	
2	49.55	28.28	130.6	155.8	1.000E-06	155.8	155.8	1.000E-06	155.8	2.9823E 05	2.9882E 05	
3	49.55	28.26	130.7	154.0	1.000E-06	154.0	154.0	1.000E-06	154.0	2.7759E 05	2.7799E 05	
4	49.54	28.28	130.7	152.6	1.000E-06	152.6	152.6	1.000E-06	152.6	2.6105E 05	2.6138E 05	
5	49.54	28.26	130.7	151.5	1.000E-06	151.5	151.5	1.000E-06	151.5	2.4865E 05	2.4891E 05	
6	49.54	28.26	130.6	150.6	1.000E-06	150.6	150.6	1.000E-06	150.6	2.3832E 05	2.3851E 05	
7	49.54	28.28	130.6	150.1	1.000E-06	150.1	150.1	1.000E-06	150.1	2.3214E 05	2.3223E 05	
8	49.54	28.26	130.6	149.9	1.000E-06	149.9	149.9	1.000E-06	149.9	2.3009E 05	2.3011E 05	
9	49.54	28.28	130.6	149.9	1.000E-06	149.9	149.9	1.000E-06	149.9	2.3013E 05	2.3008E 05	
10	49.54	28.28	130.6	150.2	1.000E-06	150.3	150.3	1.000E-06	150.2	2.3434E 05	2.3418E 05	
11	49.54	28.26	130.6	151.1	1.000E-06	151.1	151.1	1.000E-06	151.1	2.4473E 05	2.4452E 05	
12	49.54	28.26	130.6	151.8	1.000E-06	151.9	151.9	1.000E-06	151.9	2.5304E 05	2.5279E 05	
13	49.54	28.28	130.7	153.1	1.000E-06	153.1	153.1	1.000E-06	153.1	2.6757E 05	2.6728E 05	
14	49.54	28.28	130.7	154.0	1.000E-06	154.0	154.0	1.000E-06	154.0	2.7794E 05	2.7767E 05	
15	49.54	28.28	130.7	155.2	1.000E-06	155.3	155.3	1.000E-06	155.3	2.9258E 05	2.9202E 05	
16	49.54	28.28	130.8	158.3	1.000E-06	158.3	158.3	1.000E-06	158.3	3.2798E 05	3.2712E 05	
17	49.55	28.28	130.9	162.0	1.000E-06	162.0	162.1	1.000E-06	162.0	3.7164E 05	3.7054E 05	
18	49.55	28.28	131.0	167.0	1.000E-06	167.0	167.0	1.000E-06	167.0	4.2972E 05	4.2853E 05	
19	49.55	28.26	131.2	172.0	1.000E-06	172.0	170.8	1.000E-06	170.8	4.8787E 05	5.1548E 05	
20	52.34 48.63	34.07 27.67	130.7									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20=SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 13

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
	48.59 52.98	29.09 32.35	130.6									
1			130.6	165.6	1.000E-06	165.6	165.8	1.000E-06	165.8	4.1315E 05	4.0873E 05	
2	49.55	30.20	131.7	162.5	1.000E-06	162.5	162.5	1.000E-06	162.5	3.6927E 05	3.7044E 05	
3	49.55	30.20	131.5	160.2	1.000E-06	160.2	160.2	1.000E-06	160.2	3.4376E 05	3.4458E 05	
4	49.55	30.20	131.4	158.4	1.000E-06	158.5	158.4	1.000E-06	158.4	3.2330E 05	3.2396E 05	
5	49.55	30.20	131.4	157.1	1.000E-06	157.1	157.1	1.000E-06	157.1	3.0795E 05	3.0848E 05	
6	49.55	30.20	131.3	156.0	1.000E-06	156.0	156.0	1.000E-06	156.0	2.9518E 05	2.9556E 05	
7	49.55	30.20	131.3	155.3	1.000E-06	155.3	155.3	1.000E-06	155.3	2.8756E 05	2.8775E 05	
8	49.55	30.20	131.2	155.1	1.000E-06	155.1	155.1	1.000E-06	155.1	2.8507E 05	2.8512E 05	
9	49.55	30.20	131.2	155.1	1.000E-06	155.1	155.1	1.000E-06	155.1	2.8515E 05	2.8506E 05	
10	49.55	30.20	131.2	155.5	1.000E-06	155.5	155.5	1.000E-06	155.5	2.9041E 05	2.9008E 05	
11	49.55	30.20	131.3	156.6	1.000E-06	156.6	156.6	1.000E-06	156.6	3.0328E 05	3.0287E 05	
12	49.55	30.20	131.3	157.5	1.000E-06	157.5	157.6	1.000E-06	157.5	3.1741E 05	3.1000E 05	
13	49.55	30.20	131.4	159.1	1.000E-06	159.1	159.1	1.000E-06	159.1	3.3160E 05	3.3104E 05	
14	49.55	30.20	131.5	160.2	1.000E-06	160.2	160.2	1.000E-06	160.2	3.4444E 05	3.4389E 05	
15	49.55	30.20	131.5	161.8	1.000E-06	161.8	161.8	1.000E-06	161.8	3.6270E 05	3.6159E 05	
16	49.55	30.20	131.6	165.6	1.000E-06	165.6	165.6	1.000E-06	165.6	4.0666E 05	4.0494E 05	
17	49.55	30.20	131.9	170.3	1.000E-06	170.3	170.3	1.000E-06	170.3	4.6082E 05	4.5864E 05	
18	49.56	30.20	132.1	176.5	1.000E-06	176.5	176.6	1.000E-06	176.5	5.3285E 05	5.3046E 05	
19	49.56	30.20	132.4	183.1	1.000E-06	183.1	182.1	1.000E-06	182.1	6.0937E 05	6.3374E 05	
20	50.82 48.59	35.46 29.09	131.5									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 17

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	48.53 52.99	31.69 33.82	131.0	173.4	1.000E-06	173.4	173.7	1.000E-06	173.7	5.0145E 05	4.9329E 05	
2	49.57	32.12	132.7	169.8	1.000E-06	169.8	169.8	1.000E-06	169.8	4.4670E 05	4.4855E 05	
3	49.56	32.12	132.5	167.1	1.000E-06	167.1	167.1	1.000E-06	167.0	4.1590E 05	4.1720E 05	
4	49.56	32.12	132.3	164.9	1.000E-06	164.9	164.9	1.000E-06	164.9	3.9110E 05	3.9222E 05	
5	49.56	32.12	132.2	163.2	1.000E-06	163.2	163.2	1.000E-06	163.2	3.7261E 05	3.7344E 05	
6	49.56	32.12	132.1	161.8	1.000E-06	161.9	161.9	1.000E-06	161.8	3.5719E 05	3.5779E 05	
7	49.56	32.12	132.0	161.0	1.000E-06	161.0	161.0	1.000E-06	161.0	3.4801E 05	3.4831E 05	
8	49.56	32.12	132.0	160.7	1.000E-06	160.8	160.8	1.000E-06	160.7	3.4502E 05	3.4509E 05	
9	49.56	32.12	132.0	160.7	1.000E-06	160.8	160.8	1.000E-06	160.7	3.4513E 05	3.4498E 05	
10	49.56	32.12	132.0	161.3	1.000E-06	161.3	161.3	1.000E-06	161.3	3.5155E 05	3.5101E 05	
11	49.56	32.12	132.1	162.6	1.000E-06	162.7	162.7	1.000E-06	162.7	3.6714E 05	3.6649E 05	
12	49.56	32.12	132.2	163.8	1.000E-06	163.8	163.8	1.000E-06	163.8	3.7967E 05	3.7884E 05	
13	49.56	32.12	132.3	165.7	1.000E-06	165.7	165.7	1.000E-06	165.7	4.0146E 05	4.0055E 05	
14	49.56	32.12	132.4	167.0	1.000E-06	167.1	167.1	1.000E-06	167.1	4.1699E 05	4.1610E 05	
15	49.56	32.12	132.5	169.0	1.000E-06	169.0	169.0	1.000E-06	169.0	4.3918E 05	4.3742E 05	
16	49.56	32.12	132.7	173.6	1.000E-06	173.6	173.7	1.000E-06	173.7	4.9250E 05	4.8978E 05	
17	49.57	32.12	133.0	179.3	1.000E-06	179.4	179.4	1.000E-06	179.4	5.5814E 05	5.5469E 05	
18	49.57	32.12	133.5	186.9	1.000E-06	186.9	187.0	1.000E-06	187.0	6.4537E 05	6.4155E 05	
19	49.57	32.12	134.0	195.7	1.000E-06	195.8	195.3	1.000E-06	195.3	7.4718E 05	7.5730E 05	
20	48.70 48.53	36.26 31.69	132.4									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 21

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	48.50 52.99	33.71 35.28	131.4	180.1	1.000E-06	180.1	180.5	1.000E-06	180.5	5.7582E 05	5.6319E 05	
2	49.58	34.04	133.9	176.2	1.000E-06	176.2	176.2	1.000E-06	176.1	5.1125E 05	5.1385E 05	
3	49.50	34.04	133.4	173.0	1.000E-06	173.0	173.0	1.000E-06	173.0	4.7603E 05	4.7788E 05	
4	49.57	34.04	133.4	170.5	1.000E-06	170.5	170.5	1.000E-06	170.4	4.4772E 05	4.4924E 05	
5	49.57	34.04	133.2	168.6	1.000E-06	168.6	168.6	1.000E-06	168.5	4.2655E 05	4.2773E 05	
6	49.57	34.04	133.1	167.0	1.000E-06	167.0	167.0	1.000E-06	167.0	4.0892E 05	4.0977E 05	
7	49.57	34.04	133.0	166.0	1.000E-06	166.0	166.0	1.000E-06	166.0	3.9845E 05	3.9888E 05	
8	49.57	34.04	132.9	165.7	1.000E-06	165.7	165.7	1.000E-06	165.7	3.9903E 05	3.9514E 05	
9	49.57	34.04	132.9	165.7	1.000E-06	165.7	165.7	1.000E-06	165.7	3.9521E 05	3.9499E 05	
10	49.57	34.04	132.9	166.3	1.000E-06	166.4	166.4	1.000E-06	166.3	4.0259E 05	4.0183E 05	
11	49.57	34.04	133.0	167.9	1.000E-06	167.9	167.9	1.000E-06	167.9	4.2047E 05	4.1954E 05	
12	49.57	34.04	133.1	169.2	1.000E-06	169.2	169.2	1.000E-06	169.2	4.3483E 05	4.3385E 05	
13	49.57	34.04	133.3	171.4	1.000E-06	171.4	171.4	1.000E-06	171.4	4.5982E 05	4.5852E 05	
14	49.57	34.04	133.4	173.0	1.000E-06	173.0	173.0	1.000E-06	173.0	4.7759E 05	4.7632E 05	
15	49.57	34.04	133.6	175.2	1.000E-06	175.3	175.3	1.000E-06	175.3	5.0314E 05	5.0062E 05	
16	49.57	34.04	133.9	180.5	1.000E-06	180.6	180.7	1.000E-06	180.6	5.6434E 05	5.6045E 05	
17	49.58	34.04	134.4	187.2	1.000E-06	187.2	187.3	1.000E-06	187.3	6.3959E 05	6.3467E 05	
18	49.58	34.04	135.0	195.9	1.000E-06	195.9	196.1	1.000E-06	196.0	7.3958E 05	7.3402E 05	
19	49.59	34.04	135.8	206.5	1.000E-06	206.6	206.7	1.000E-06	206.6	8.6225E 05	8.6050E 05	
20	47.38 48.50	37.38 33.71	133.5									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SHALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 25

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBLK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
	48.44 53.00	35.71 36.75										
1			131.9	186.8	1.000E+06	186.8	187.4	1.000E+06	187.3	6.5033E 05	6.3278E 05	
2	49.59	35.96	135.3	182.6	1.000E+06	182.7	182.6	1.000E+06	182.6	5.7569E 05	5.7911E 05	
3	49.59	35.96	134.9	179.0	1.000E+06	179.1	179.0	1.000E+06	179.0	5.3606E 05	5.3854E 05	
4	49.59	35.96	134.6	176.2	1.000E+06	176.2	176.1	1.000E+06	176.1	5.0423E 05	5.0623E 05	
5	49.58	35.96	134.3	174.0	1.000E+06	174.0	174.0	1.000E+06	173.9	4.8037E 05	4.8195E 05	
6	49.58	35.96	134.1	172.2	1.000E+06	172.2	172.2	1.000E+06	172.2	4.6055E 05	4.6168E 05	
7	49.58	35.95	134.0	171.1	1.000E+06	171.1	171.1	1.000E+06	171.1	4.4880E 05	4.4938E 05	
8	49.58	35.95	133.9	170.7	1.000E+06	170.7	170.7	1.000E+06	170.7	4.4500E 05	4.4519E 05	
9	49.58	35.95	133.9	170.7	1.000E+06	170.7	170.8	1.000E+06	170.7	4.4522E 05	4.4494E 05	
10	49.58	35.95	134.0	171.4	1.000E+06	171.5	171.5	1.000E+06	171.5	4.5362E 05	4.5259E 05	
11	49.58	35.95	134.1	173.2	1.000E+06	173.2	173.3	1.000E+06	173.2	4.7379E 05	4.7254E 05	
12	49.58	35.95	134.2	174.7	1.000E+06	174.7	174.7	1.000E+06	174.7	4.8997E 05	4.8839E 05	
13	49.58	35.96	134.4	177.2	1.000E+06	177.2	177.2	1.000E+06	177.2	5.1812E 05	5.1639E 05	
14	49.58	35.96	134.6	179.0	1.000E+06	179.0	179.1	1.000E+06	179.0	5.3815E 05	5.3645E 05	
15	49.58	35.96	134.9	181.5	1.000E+06	181.6	181.7	1.000E+06	181.6	5.6705E 05	5.6369E 05	
16	49.59	35.96	135.3	187.6	1.000E+06	187.6	187.7	1.000E+06	187.7	6.3613E 05	6.3095E 05	
17	49.59	35.96	135.9	195.1	1.000E+06	195.1	195.2	1.000E+06	195.2	7.2099E 05	7.1445E 05	
18	49.60	35.96	136.8	209.0	1.000E+06	209.0	209.2	1.000E+06	209.1	8.3378E 05	8.2624E 05	
19	49.61	35.96	137.8	217.9	1.000E+06	218.0	219.0	1.000E+06	219.0	9.8320E 05	9.5744E 05	
20	45.53 48.44	38.03 35.71	134.7									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SHALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 29

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBLK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
	48.40 53.00	37.71 38.22										
1			132.5	194.1	1.000E+06	194.1	194.9	1.000E+06	194.0	7.1247E 05	7.0002E 05	
2	49.61	37.87	136.9	189.7	1.000E+06	189.7	189.7	1.000E+06	189.6	6.4651E 05	6.5081E 05	
3	49.60	37.87	136.3	185.6	1.000E+06	185.7	185.6	1.000E+06	185.6	6.0202E 05	6.0518E 05	
4	49.60	37.87	135.9	182.4	1.000E+06	182.4	182.4	1.000E+06	182.3	5.6630E 05	5.6886E 05	
5	49.60	37.87	135.6	179.9	1.000E+06	179.9	179.9	1.000E+06	179.9	5.3953E 05	5.4154E 05	
6	49.59	37.87	135.4	177.9	1.000E+06	177.9	177.9	1.000E+06	177.8	5.1729E 05	5.1874E 05	
7	49.59	37.87	135.2	176.6	1.000E+06	176.7	176.7	1.000E+06	176.6	5.0416E 05	5.0490E 05	
8	49.59	37.87	135.1	176.2	1.000E+06	176.2	176.2	1.000E+06	176.2	4.9991E 05	5.0011E 05	
9	49.59	37.87	135.1	176.2	1.000E+06	176.3	176.3	1.000E+06	176.2	5.0020E 05	4.9983E 05	
10	49.59	37.87	135.1	177.0	1.000E+06	177.1	177.1	1.000E+06	177.1	5.0969E 05	5.0838E 05	
11	49.59	37.87	135.3	179.0	1.000E+06	179.1	179.1	1.000E+06	179.1	5.3234E 05	5.3076E 05	
12	49.59	37.87	135.5	180.7	1.000E+06	180.7	180.8	1.000E+06	180.7	5.5056E 05	5.4855E 05	
13	49.59	37.87	135.7	183.5	1.000E+06	183.5	183.6	1.000E+06	183.5	5.8218E 05	5.7999E 05	
14	49.60	37.87	136.0	185.6	1.000E+06	185.6	185.7	1.000E+06	185.6	6.0471E 05	6.0254E 05	
15	49.60	37.87	136.3	188.5	1.000E+06	188.5	188.6	1.000E+06	188.6	6.3729E 05	6.3300E 05	
16	49.60	37.87	136.8	195.3	1.000E+06	195.3	195.4	1.000E+06	195.4	7.1499E 05	7.0840E 05	
17	49.61	37.87	137.7	203.7	1.000E+06	203.8	203.9	1.000E+06	203.9	8.1047E 05	8.0216E 05	
18	49.62	37.87	138.8	214.8	1.000E+06	214.9	215.1	1.000E+06	215.0	9.3724E 05	9.2762E 05	
19	49.63	37.87	140.2	230.0	1.000E+06	230.1	232.0	1.000E+06	231.9	1.1131E 06	1.0672E 06	
20	44.38 48.40	38.95 37.71	136.1									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/06/67

MESH POINT = 33

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR-FT2	Q / A BTU/HR-FT2	WINDOW
1	48.37 53.01	39.72 39.68	133.2									*
2	49.63	39.78	138.6	200.3	1.000E-06	200.3	201.3	1.000E-06	201.2	8.0014E 05	7.7135E 05	*
3	49.62	39.78	137.9	195.8	1.000E-06	195.8	195.7	1.000E-06	195.7	7.0454E 05	7.0981E 05	*
4	49.62	39.78	137.4	191.3	1.000E-06	191.4	191.3	1.000E-06	191.2	6.5609E 05	6.6000E 05	*
5	49.61	39.78	137.0	187.7	1.000E-06	187.8	187.7	1.000E-06	187.7	6.1718E 05	6.2037E 05	*
				185.0	1.000E-06	185.1	185.0	1.000E-06	185.0	5.8806E 05	5.9057E 05	*
6	49.61	39.78	136.7									*
7	49.61	39.78	136.5	182.8	1.000E-06	182.8	182.8	1.000E-06	182.8	5.6386E 05	5.6566E 05	*
8	49.60	39.78	136.4	181.4	1.000E-06	181.5	181.5	1.000E-06	181.4	5.4954E 05	5.5045E 05	*
9	49.60	39.78	136.3	181.0	1.000E-06	181.0	181.0	1.000E-06	181.0	5.4498E 05	5.4522E 05	*
10	49.60	39.78	136.4	181.0	1.000E-06	181.0	181.0	1.000E-06	181.0	5.4532E 05	5.4486E 05	*
				181.9	1.000E-06	181.9	182.0	1.000E-06	181.9	5.5574E 05	5.5410E 05	*
11	49.60	39.78	136.6									*
12	49.61	39.78	136.8	184.1	1.000E-06	184.1	184.2	1.000E-06	184.1	5.8046E 05	5.7849E 05	*
13	49.61	39.78	137.2	185.9	1.000E-06	185.9	186.0	1.000E-06	186.0	6.0037E 05	5.9787E 05	*
14	49.61	39.78	137.5	189.0	1.000E-06	189.0	189.1	1.000E-06	189.0	6.3485E 05	6.3212E 05	*
15	49.61	39.78	137.9	191.3	1.000E-06	191.3	191.4	1.000E-06	191.3	6.5941E 05	6.5671E 05	*
				194.4	1.000E-06	194.5	194.6	1.000E-06	194.5	6.9508E 05	6.8976E 05	*
16	49.62	39.78	138.5									*
17	49.63	39.78	139.6	201.9	1.000E-06	201.9	202.1	1.000E-06	202.0	7.8001E 05	7.7183E 05	*
18	49.64	39.78	141.0	211.1	1.000E-06	211.1	211.3	1.000E-06	211.3	8.8370E 05	8.7439E 05	*
19	49.65	39.78	142.8	223.1	1.000E-06	223.2	223.4	1.000E-06	223.4	1.0218E 06	1.0113E 06	*
20	43.28	39.74	137.6	240.3	1.000E-06	240.3	243.3	1.000E-06	243.2	1.2234E 06	1.1534E 06	*
	48.37	39.72										*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 37

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR-FT2	Q / A BTU/HR-FT2	WINDOW
1	48.33 53.07	41.72 41.68	137.9									*
2	49.64	41.69	140.5	207.2	1.000E-06	207.7	208.6	1.000E-06	208.6	8.8465E 05	8.4487E 05	*
3	49.64	41.69	139.7	203.0	1.000E-06	203.0	202.9	1.000E-06	202.8	7.7537E 05	7.8122E 05	*
4	49.63	41.69	139.1	198.0	1.000E-06	198.1	198.0	1.000E-06	197.9	7.2190E 05	7.2663E 05	*
5	49.63	41.69	138.6	194.1	1.000E-06	194.1	194.1	1.000E-06	194.0	6.7912E 05	6.8296E 05	*
				191.1	1.000E-06	191.1	191.1	1.000E-06	191.0	6.4709E 05	6.5012E 05	*
6	49.62	41.69	138.2									*
7	49.62	41.69	137.9	188.6	1.000E-06	188.7	188.6	1.000E-06	188.6	6.2048E 05	6.2266E 05	*
8	49.62	41.69	137.8	187.1	1.000E-06	187.2	187.1	1.000E-06	187.1	6.0482E 05	6.0591E 05	*
9	49.62	41.69	137.7	186.6	1.000E-06	186.6	186.6	1.000E-06	186.6	5.9983E 05	6.0012E 05	*
10	49.62	41.69	137.8	186.6	1.000E-06	186.7	186.7	1.000E-06	186.6	6.0025E 05	5.9969E 05	*
				187.6	1.000E-06	187.6	187.7	1.000E-06	187.6	6.1177E 05	6.0979E 05	*
11	49.62	41.69	138.1									*
12	49.62	41.69	138.4	190.0	1.000E-06	190.1	190.1	1.000E-06	190.1	6.3898E 05	6.3659E 05	*
13	49.62	41.69	138.7	192.0	1.000E-06	192.1	192.2	1.000E-06	192.1	6.6091E 05	6.5789E 05	*
14	49.63	41.69	139.2	195.4	1.000E-06	195.5	195.6	1.000E-06	195.5	6.9889E 05	6.9560E 05	*
15	49.63	41.69	139.6	198.0	1.000E-06	198.0	198.1	1.000E-06	198.0	7.2591E 05	7.2264E 05	*
				201.5	1.000E-06	201.5	201.6	1.000E-06	201.6	7.6513E 05	7.5906E 05	*
16	49.64	41.69	140.4									*
17	49.65	41.69	141.7	209.6	1.000E-06	209.6	209.8	1.000E-06	209.8	8.5830E 05	8.4967E 05	*
18	49.66	41.69	143.5	219.6	1.000E-06	219.7	219.9	1.000E-06	219.9	9.7284E 05	9.6212E 05	*
19	49.68	41.69	145.6	232.8	1.000E-06	232.9	233.2	1.000E-06	233.1	1.1252E 06	1.1124E 06	*
20	43.78	41.54	139.2	251.4	1.000E-06	251.4	254.5	1.000E-06	254.4	1.3448E 06	1.2712E 06	*
	48.33	41.72										*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 41

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	48.03 53.81	43.55 43.22	134.6	212.7	1.000E-06	212.8	214.5	1.000E-06	214.4	9.4799E 05	8.9748E 05	*
2	49.40	43.42	142.5	208.8	1.000E-06	208.8	208.7	1.000E-06	208.6	8.2721E 05	8.3371E 05	*
3	49.39	43.42	141.6	203.5	1.000E-06	203.6	203.5	1.000E-06	203.4	7.7029E 05	7.7528E 05	*
4	49.38	43.42	140.8	199.4	1.000E-06	199.4	199.3	1.000E-06	199.3	7.2462E 05	7.2870E 05	*
5	49.38	43.42	140.2	196.2	1.000E-06	196.2	196.1	1.000E-06	196.1	6.9035E 05	6.9375E 05	*
6	49.37	43.42	139.8	193.5	1.000E-06	193.5	193.5	1.000E-06	193.5	6.6194E 05	6.6452E 05	*
7	49.37	43.42	139.5	191.9	1.000E-06	191.9	191.9	1.000E-06	191.9	6.4526E 05	6.4657E 05	*
8	49.37	43.42	139.3	191.3	1.000E-06	191.4	191.4	1.000E-06	191.3	6.3999E 05	6.4032E 05	*
9	49.37	43.42	139.2	191.3	1.000E-06	191.4	191.4	1.000E-06	191.3	6.4050E 05	6.3984E 05	*
10	49.37	43.42	139.3	192.4	1.000E-06	192.4	192.5	1.000E-06	192.5	6.5287E 05	6.5052E 05	*
11	49.37	43.42	139.6	195.0	1.000E-06	195.1	195.1	1.000E-06	195.1	6.8194E 05	6.7910E 05	*
12	49.37	43.42	140.0	197.2	1.000E-06	197.2	197.3	1.000E-06	197.3	7.0521E 05	7.0198E 05	*
13	49.37	43.42	140.4	200.8	1.000E-06	200.8	200.9	1.000E-06	200.9	7.4570E 05	7.4220E 05	*
14	49.38	43.42	141.0	203.5	1.000E-06	203.5	203.6	1.000E-06	203.5	7.7453E 05	7.7107E 05	*
15	49.38	43.42	141.5	207.2	1.000E-06	207.3	207.4	1.000E-06	207.3	8.1655E 05	8.0978E 05	*
16	49.39	43.42	142.9	215.9	1.000E-06	215.9	216.2	1.000E-06	216.1	9.1632E 05	9.0611E 05	*
17	49.40	43.42	144.0	226.6	1.000E-06	226.7	227.0	1.000E-06	226.9	1.0387E 06	1.0260E 06	*
18	49.42	43.42	146.1	240.7	1.000E-06	240.8	241.1	1.000E-06	241.1	1.2016E 06	1.1868E 06	*
19	49.44	43.42	148.7	260.0	1.000E-06	260.1	262.9	1.000E-06	262.8	1.4293E 06	1.3620E 06	*
20	44.33 48.03	43.22 43.55	140.8									*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME 7640

3/08/67

MESH POINT = 45

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	47.50 54.49	44.68 44.66	135.2	216.9	1.000E-06	217.0	218.1	1.000E-06	219.1	1.0038E 06	9.3880E 05	*
2	49.16	44.65	144.2	213.6	1.000E-06	213.7	213.5	1.000E-06	213.5	8.7062E 05	8.7774E 05	*
3	49.15	44.65	143.1	208.1	1.000E-06	208.2	208.0	1.000E-06	208.0	8.1071E 05	8.1628E 05	*
4	49.14	44.65	142.3	203.7	1.000E-06	203.7	203.6	1.000E-06	203.6	7.6266E 05	7.6724E 05	*
5	49.13	44.65	141.6	200.3	1.000E-06	200.3	200.3	1.000E-06	200.2	7.2669E 05	7.3032E 05	*
6	49.13	44.66	141.1	197.5	1.000E-06	197.6	197.5	1.000E-06	197.5	6.9686E 05	6.9947E 05	*
7	49.12	44.66	140.7	195.8	1.000E-06	195.9	195.8	1.000E-06	195.8	6.7928E 05	6.8060E 05	*
8	49.12	44.66	140.5	195.2	1.000E-06	195.3	195.3	1.000E-06	195.2	6.7369E 05	6.7403E 05	*
9	49.12	44.66	140.5	195.2	1.000E-06	195.3	195.3	1.000E-06	195.3	6.7421E 05	6.7353E 05	*
10	49.12	44.66	140.6	196.4	1.000E-06	196.4	196.5	1.000E-06	196.4	6.8718E 05	6.8481E 05	*
11	49.12	44.66	141.9	199.1	1.000E-06	199.1	199.2	1.000E-06	199.2	7.1780E 05	7.1494E 05	*
12	49.12	44.66	141.3	201.4	1.000E-06	201.4	201.5	1.000E-06	201.5	7.4245E 05	7.3884E 05	*
13	49.13	44.66	141.8	205.2	1.000E-06	205.2	205.3	1.000E-06	205.3	7.6511E 05	7.8119E 05	*
14	49.13	44.65	142.4	208.0	1.000E-06	208.1	208.2	1.000E-06	208.1	8.1543E 05	8.1150E 05	*
15	49.14	44.65	143.0	212.0	1.000E-06	212.0	212.2	1.000E-06	212.1	8.5979E 05	8.5221E 05	*
16	49.15	44.65	144.1	221.1	1.000E-06	221.2	221.4	1.000E-06	221.4	9.6495E 05	9.5347E 05	*
17	49.16	44.65	145.9	232.5	1.000E-06	232.6	232.9	1.000E-06	232.8	1.0938E 06	1.0795E 06	*
18	49.18	44.65	148.2	247.4	1.000E-06	247.5	247.9	1.000E-06	247.8	1.2661E 06	1.2472E 06	*
19	49.21	44.65	151.2	265.8	1.000E-06	265.9	266.7	1.000E-06	266.6	1.4791E 06	1.4591E 06	*
20	47.01 47.50	45.98 44.68	142.1									*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20=SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 49

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	47.46	46.02	136.0	223.0	1.000E-06	223.1	225.5	1.000E-06	225.4	1.0722E 06	1.0002E 06	
2	49.14	46.52	140.5	219.8	1.000E-06	219.8	219.6	1.000E-06	219.6	9.2845E 05	9.3666E 05	
3	49.18	46.52	145.2	213.9	1.000E-06	213.9	213.8	1.000E-06	213.7	8.6458E 05	8.7104E 05	
4	49.17	46.52	144.3	209.1	1.000E-06	209.2	209.1	1.000E-06	209.0	8.1335E 05	8.1064E 05	
5	49.16	46.52	143.5	205.5	1.000E-06	205.0	205.5	1.000E-06	205.4	7.7505E 05	7.7924E 05	
6	49.15	46.52	142.9	202.6	1.000E-06	202.0	202.5	1.000E-06	202.5	7.4326E 05	7.4628E 05	
7	49.14	46.52	142.5	200.7	1.000E-06	200.8	200.8	1.000E-06	200.7	7.2457E 05	7.2611E 05	
8	49.14	46.52	142.2	200.1	1.000E-06	200.2	200.2	1.000E-06	200.1	7.1865E 05	7.1904E 05	
9	49.14	46.52	142.2	200.1	1.000E-06	200.2	200.2	1.000E-06	200.1	7.1924E 05	7.1845E 05	
10	49.14	46.52	142.3	201.3	1.000E-06	201.4	201.4	1.000E-06	201.4	7.3317E 05	7.3042E 05	
11	49.14	46.52	142.7	204.2	1.000E-06	204.3	204.3	1.000E-06	204.3	7.6584E 05	7.6251E 05	
12	49.14	46.52	143.1	206.7	1.000E-06	206.7	206.8	1.000E-06	206.8	7.9218E 05	7.8799E 05	
13	49.15	46.52	143.8	210.7	1.000E-06	210.8	210.9	1.000E-06	210.8	8.3768E 05	8.3315E 05	
14	49.16	46.52	144.4	213.8	1.000E-06	213.8	213.9	1.000E-06	213.9	8.7007E 05	8.6556E 05	
15	49.16	46.52	145.1	218.0	1.000E-06	218.1	218.2	1.000E-06	218.2	9.1753E 05	9.0872E 05	
16	49.17	46.52	146.4	227.8	1.000E-06	227.8	228.1	1.000E-06	228.0	1.0299E 06	1.0165E 06	
17	49.19	46.52	148.5	239.9	1.000E-06	240.0	240.4	1.000E-06	240.3	1.1682E 06	1.1502E 06	
18	49.22	46.51	151.2	256.0	1.000E-06	256.1	256.6	1.000E-06	256.5	1.3529E 06	1.3282E 06	
19	49.24	46.51	154.6	276.3	1.000E-06	276.4	278.0	1.000E-06	277.9	1.5862E 06	1.5482E 06	
20	47.46	46.02										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20=SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 53

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	47.43	48.95	136.9	228.8	1.000E-06	228.9	231.7	1.000E-06	231.6	1.1428E 06	1.0593E 06	
2	49.22	48.38	148.9	225.9	1.000E-06	226.0	225.8	1.000E-06	225.7	9.8625E 05	9.9555E 05	
3	49.21	48.38	147.5	219.7	1.000E-06	219.7	219.6	1.000E-06	219.5	9.1837E 05	9.2580E 05	
4	49.19	48.38	146.4	214.6	1.000E-06	214.7	214.6	1.000E-06	214.5	8.6402E 05	8.7012E 05	
5	49.18	48.39	145.5	210.8	1.000E-06	210.8	210.7	1.000E-06	210.7	8.2330E 05	8.2817E 05	
6	49.17	48.39	144.8	207.6	1.000E-06	207.7	207.6	1.000E-06	207.6	7.8962E 05	7.9309E 05	
7	49.17	48.39	144.3	205.7	1.000E-06	205.7	205.7	1.000E-06	205.7	7.6984E 05	7.7160E 05	
8	49.17	48.39	144.1	205.0	1.000E-06	205.1	205.1	1.000E-06	205.0	7.6360E 05	7.6406E 05	
9	49.17	48.39	144.0	205.0	1.000E-06	205.1	205.1	1.000E-06	205.0	7.6426E 05	7.6336E 05	
10	49.17	48.39	144.1	206.3	1.000E-06	206.4	206.4	1.000E-06	206.4	7.7917E 05	7.7601E 05	
11	49.17	48.39	144.6	209.4	1.000E-06	209.4	209.5	1.000E-06	209.5	8.1391E 05	8.1009E 05	
12	49.17	48.39	145.1	212.0	1.000E-06	212.1	212.2	1.000E-06	212.1	8.4195E 05	8.3713E 05	
13	49.17	48.39	145.8	216.3	1.000E-06	216.4	216.5	1.000E-06	216.4	8.9031E 05	8.8510E 05	
14	49.18	48.39	146.0	219.6	1.000E-06	219.6	219.7	1.000E-06	219.7	9.2471E 05	9.1951E 05	
15	49.19	48.38	147.4	224.1	1.000E-06	224.1	224.3	1.000E-06	224.3	9.7534E 05	9.6517E 05	
16	49.20	48.38	148.9	234.5	1.000E-06	234.5	234.9	1.000E-06	234.8	1.0956E 06	1.0789E 06	
17	49.22	48.38	151.3	247.5	1.000E-06	247.6	248.1	1.000E-06	248.0	1.2432E 06	1.2203E 06	
18	49.25	48.37	154.4	264.8	1.000E-06	264.9	265.5	1.000E-06	265.4	1.4388E 06	1.4100E 06	
19	49.28	48.36	158.3	286.1	1.000E-06	286.2	287.7	1.000E-06	287.6	1.6834E 06	1.6472E 06	
20	46.00	48.15	145.6									
	47.43	48.95										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 57

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDOW
1	47.00 55.08	50.23 49.91	137.9									*
2	49.00	50.06	151.5	234.1	1.000E+06	234.2	237.5	1.000E+06	237.4	1.2045E 06	1.1061E 06	*
3	48.99	50.07	149.9	231.8	1.000E+06	231.9	231.6	1.000E+06	231.5	1.0338E 06	1.0458E 06	*
4	48.98	50.07	148.7	225.1	1.000E+06	225.2	225.0	1.000E+06	224.9	9.6338E 05	9.7187E 05	*
5	48.96	50.08	147.6	219.8	1.000E+06	219.8	219.7	1.000E+06	219.6	9.0636E 05	9.1330E 05	*
				215.7	1.000E+06	215.8	215.7	1.000E+06	215.6	8.6374E 05	8.6923E 05	*
6	48.95	50.08	146.9	212.4	1.000E+06	212.5	212.4	1.000E+06	212.3	8.2842E 05	8.3237E 05	*
7	48.95	50.08	146.3	210.4	1.000E+06	210.4	210.4	1.000E+06	210.3	8.0773E 05	8.0973E 05	*
8	48.94	50.08	146.0	209.6	1.000E+06	209.7	209.7	1.000E+06	209.6	8.0126E 05	8.0178E 05	*
9	48.94	50.08	145.9	209.7	1.000E+06	209.7	209.7	1.000E+06	209.7	8.0203E 05	8.0101E 05	*
10	48.94	50.08	146.1	211.0	1.000E+06	211.1	211.1	1.000E+06	211.1	8.1775E 05	8.1415E 05	*
11	48.94	50.08	146.6	214.3	1.000E+06	214.3	214.4	1.000E+06	214.3	8.5424E 05	8.4988E 05	*
12	48.95	50.08	147.2	217.0	1.000E+06	217.1	217.2	1.000E+06	217.1	8.8368E 05	8.7819E 05	*
13	48.95	50.08	148.0	221.6	1.000E+06	221.6	221.7	1.000E+06	221.7	9.3444E 05	9.2851E 05	*
14	48.96	50.08	148.9	225.0	1.000E+06	225.0	225.2	1.000E+06	225.1	9.7055E 05	9.6461E 05	*
15	48.97	50.07	149.7	229.8	1.000E+06	229.9	230.1	1.000E+06	230.1	1.0247E 06	1.0110E 06	*
16	48.99	50.07	151.5	240.9	1.000E+06	241.0	241.4	1.000E+06	241.3	1.1511E 06	1.1306E 06	*
17	49.01	50.06	154.2	254.8	1.000E+06	254.9	255.5	1.000E+06	255.4	1.3057E 06	1.2794E 06	*
18	49.04	50.05	157.7	273.0	1.000E+06	273.1	273.7	1.000E+06	273.6	1.5101E 06	1.4793E 06	*
19	49.08	50.04	162.2	294.6	1.000E+06	294.7	295.6	1.000E+06	295.5	1.7579E 06	1.7370E 06	*
20	46.58	49.87	147.4									*
	47.00	50.23										*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 58

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDOW
1	47.00 55.09	50.74 50.30	138.1									*
2	49.01	50.52	152.2	235.4	1.000E+06	235.5	238.8	1.000E+06	238.8	1.2185E 06	1.1174E 06	*
3	49.00	50.53	150.5	233.2	1.000E+06	233.2	233.0	1.000E+06	232.9	1.0450E 06	1.0578E 06	*
4	48.98	50.53	149.2	226.4	1.000E+06	226.4	226.2	1.000E+06	226.2	9.7169E 05	9.6279E 05	*
5	48.97	50.54	148.2	221.0	1.000E+06	221.0	220.9	1.000E+06	220.8	9.1616E 05	9.2333E 05	*
				216.9	1.000E+06	216.9	216.8	1.000E+06	216.7	8.7312E 05	8.7879E 05	*
6	48.96	50.54	147.4	213.5	1.000E+06	213.5	213.4	1.000E+06	213.4	8.3742E 05	8.4149E 05	*
7	48.95	50.54	146.8	211.4	1.000E+06	211.5	211.4	1.000E+06	211.4	8.1654E 05	8.1860E 05	*
8	48.95	50.54	146.5	210.7	1.000E+06	210.7	210.7	1.000E+06	210.7	8.1000E 05	8.1053E 05	*
9	48.95	50.54	146.4	210.7	1.000E+06	210.8	210.8	1.000E+06	210.7	8.1079E 05	8.0973E 05	*
10	48.95	50.54	146.6	212.1	1.000E+06	212.1	212.2	1.000E+06	212.1	8.2671E 05	8.2300E 05	*
11	48.95	50.54	147.1	215.4	1.000E+06	215.4	215.5	1.000E+06	215.5	8.6361E 05	8.5911E 05	*
12	48.95	50.54	147.7	218.2	1.000E+06	218.2	218.3	1.000E+06	218.3	8.9339E 05	8.8772E 05	*
13	48.96	50.54	148.6	222.8	1.000E+06	222.8	222.9	1.000E+06	222.9	9.4476E 05	9.3862E 05	*
14	48.97	50.54	149.5	226.2	1.000E+06	226.3	226.4	1.000E+06	226.4	9.8141E 05	9.7491E 05	*
15	48.98	50.53	150.4	231.1	1.000E+06	231.2	231.5	1.000E+06	231.4	1.0361E 06	1.0224E 06	*
16	48.99	50.53	152.1	242.4	1.000E+06	242.5	242.9	1.000E+06	242.8	1.1640E 06	1.1427E 06	*
17	49.02	50.52	154.9	256.5	1.000E+06	256.6	257.1	1.000E+06	257.1	1.3202E 06	1.2931E 06	*
18	49.05	50.51	158.6	274.8	1.000E+06	274.9	275.6	1.000E+06	275.5	1.5265E 06	1.4956E 06	*
19	49.09	50.50	163.2	296.4	1.000E+06	296.5	297.2	1.000E+06	297.1	1.7744E 06	1.7586E 06	*
20	46.75	50.31	147.9									*
	47.00	50.71										*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20=SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 59

DX = 0.00010 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDCH
1	45.48	49.78	138.1	235.0	1.000E-06	235.1	239.2	1.000E-06	239.1	1.2296E 06	1.1064E 06	
2	48.17	49.99	152.2	234.3	1.000E-06	234.4	234.1	1.000E-06	234.0	1.0452E 06	1.0572E 06	
3	48.16	49.99	150.6	227.4	1.000E-06	227.5	227.3	1.000E-06	227.3	9.7368E 05	9.8271E 05	
4	48.13	49.99	149.2	222.0	1.000E-06	222.0	221.9	1.000E-06	221.8	9.1632E 05	9.2328E 05	
5	48.11	49.99	148.2	217.9	1.000E-06	218.0	217.9	1.000E-06	217.8	8.7403E 05	8.7798E 05	
6	47.96	49.90	147.4	214.6	1.000E-06	214.6	214.6	1.000E-06	214.5	8.3755E 05	8.4148E 05	
7	47.95	49.90	146.8	212.9	1.000E-06	212.6	212.5	1.000E-06	212.5	8.1661E 05	8.1861E 05	
8	47.95	49.90	146.5	211.8	1.000E-06	211.8	211.8	1.000E-06	211.8	8.1005E 05	8.1056E 05	
9	47.95	49.90	146.4	211.8	1.000E-06	211.8	211.9	1.000E-06	211.8	8.1081E 05	8.0977E 05	
10	47.95	49.90	146.6	213.2	1.000E-06	213.2	213.3	1.000E-06	213.2	8.2671E 05	8.2309E 05	
11	47.95	49.90	147.1	216.5	1.000E-06	216.6	216.6	1.000E-06	216.6	8.6360E 05	8.5921E 05	
12	47.95	49.90	147.7	219.3	1.000E-06	219.4	219.5	1.000E-06	219.4	8.9335E 05	8.8784E 05	
13	47.96	49.90	148.6	223.9	1.000E-06	224.0	224.1	1.000E-06	224.0	9.4386E 05	9.3957E 05	
14	48.11	49.99	149.5	227.3	1.000E-06	227.4	227.5	1.000E-06	227.5	9.8137E 05	9.7504E 05	
15	48.13	49.99	150.4	232.3	1.000E-06	232.3	232.6	1.000E-06	232.6	1.0360E 06	1.0226E 06	
16	48.15	49.99	152.1	243.7	1.000E-06	243.7	244.2	1.000E-06	244.1	1.1638E 06	1.1431E 06	
17	48.18	49.99	154.9	257.9	1.000E-06	258.0	258.5	1.000E-06	258.4	1.3199E 06	1.2934E 06	
18	48.23	49.98	158.6	276.4	1.000E-06	276.5	277.1	1.000E-06	277.1	1.5261E 06	1.4961E 06	
19	48.28	49.98	163.2	290.0	1.000E-06	290.1	281.8	1.000E-06	281.7	1.6668E 06	1.6664E 06	
20	57.70	57.88	147.9									
	45.48	49.78										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20=SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 63

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDCH
1	45.45	51.57	139.1	240.1	1.000E-06	240.2	244.7	1.000E-06	244.6	1.2863E 06	1.1905E 06	
2	48.21	51.76	154.9	239.9	1.000E-06	239.9	234.7	1.000E-06	239.6	1.0880E 06	1.1033E 06	
3	48.19	51.76	153.2	232.7	1.000E-06	232.7	232.5	1.000E-06	232.4	1.0149E 06	1.0260E 06	
4	48.16	51.77	151.7	226.9	1.000E-06	226.9	226.7	1.000E-06	226.7	9.5503E 05	9.6401E 05	
5	48.14	51.77	150.5	222.5	1.000E-06	222.6	222.5	1.000E-06	222.4	9.1129E 05	9.1635E 05	
6	47.99	51.64	149.6	219.0	1.000E-06	219.1	219.0	1.000E-06	218.9	8.7350E 05	8.7798E 05	
7	47.98	51.67	148.9	216.8	1.000E-06	216.9	216.8	1.000E-06	216.8	8.5179E 05	8.5407E 05	
8	47.97	51.67	148.6	216.0	1.000E-06	216.1	216.1	1.000E-06	216.0	8.4900E 05	8.4559E 05	
9	47.97	51.67	148.5	216.1	1.000E-06	216.1	216.1	1.000E-06	216.1	8.4589E 05	8.4471E 05	
10	47.97	51.67	148.7	217.5	1.000E-06	217.6	217.6	1.000E-06	217.6	8.6256E 05	8.5843E 05	
11	47.98	51.67	149.3	221.0	1.000E-06	221.0	221.2	1.000E-06	221.1	9.0111E 05	8.9611E 05	
12	47.98	51.67	150.0	224.0	1.000E-06	224.0	224.7	1.000E-06	224.1	9.3258E 05	9.2551E 05	
13	47.99	51.68	150.9	228.9	1.000E-06	228.9	229.1	1.000E-06	229.0	9.8533E 05	9.7939E 05	
14	48.14	51.77	151.9	232.5	1.000E-06	232.6	232.6	1.000E-06	232.7	1.0243E 06	1.0165E 06	
15	48.16	51.77	153.0	237.8	1.000E-06	237.8	238.2	1.000E-06	238.1	1.0814E 06	1.0661E 06	
16	48.18	51.76	155.0	249.7	1.000E-06	249.8	250.3	1.000E-06	250.2	1.2150E 06	1.1913E 06	
17	48.22	51.76	158.1	264.6	1.000E-06	264.7	265.3	1.000E-06	265.2	1.3772E 06	1.3490E 06	
18	48.27	51.76	162.2	283.7	1.000E-06	283.8	284.5	1.000E-06	284.4	1.5923E 06	1.5603E 06	
19	48.32	51.75	167.3	298.4	1.000E-06	298.6	290.6	1.000E-06	290.5	1.7473E 06	1.9385E 06	
20	56.50	58.89	149.5									
	45.45	51.57										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20=SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 67

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	45.41 56.03	53.37 54.20	140.2	245.2	1.000E-06	245.3	250.2	1.000E-06	250.2	1.3434E 06	1.1943E 06	
2	48.24	53.53	157.8	245.5	1.000E-06	245.6	245.3	1.000E-06	245.2	1.1346E 06	1.1494E 06	
3	48.23	53.54	155.9	238.0	1.000E-06	238.1	237.8	1.000E-06	237.7	1.0564E 06	1.0689E 06	
4	48.20	53.54	154.2	231.9	1.000E-06	232.0	231.7	1.000E-06	231.7	9.9418E 05	1.0043E 06	
5	48.17	53.54	152.9	227.3	1.000E-06	227.4	227.2	1.000E-06	227.2	9.4856E 05	9.5477E 05	
6	48.02	53.44	151.9	223.6	1.000E-06	223.6	223.5	1.000E-06	223.5	9.0918E 05	9.1483E 05	
7	48.01	53.44	151.2	221.2	1.000E-06	221.3	221.2	1.000E-06	221.2	8.8677E 05	8.8965E 05	
8	48.00	53.44	150.8	220.4	1.000E-06	220.5	220.5	1.000E-06	220.4	8.7990E 05	8.8065E 05	
9	48.00	53.44	150.7	220.4	1.000E-06	220.5	220.5	1.000E-06	220.5	8.8103E 05	8.7953E 05	
10	48.00	53.44	150.9	222.0	1.000E-06	222.0	222.2	1.000E-06	222.1	8.9874E 05	8.9355E 05	
11	48.01	53.44	151.6	225.7	1.000E-06	225.7	225.9	1.000E-06	225.0	9.3896E 05	9.3242E 05	
12	48.01	53.44	152.4	228.9	1.000E-06	228.9	229.1	1.000E-06	229.0	9.7148E 05	9.6353E 05	
13	48.02	53.44	153.4	234.0	1.000E-06	234.0	234.2	1.000E-06	234.1	1.0264E 06	1.0196E 06	
14	48.17	53.54	154.5	237.8	1.000E-06	237.9	238.1	1.000E-06	238.0	1.0471E 06	1.0383E 06	
15	48.19	53.54	155.6	243.3	1.000E-06	243.4	243.8	1.000E-06	243.7	1.1269E 06	1.1095E 06	
16	48.21	53.54	157.9	255.8	1.000E-06	255.9	256.4	1.000E-06	256.3	1.2658E 06	1.2402E 06	
17	48.25	53.53	161.4	271.2	1.000E-06	271.3	271.9	1.000E-06	271.8	1.4346E 06	1.4045E 06	
18	48.31	53.53	166.0	291.0	1.000E-06	291.1	291.8	1.000E-06	291.7	1.6588E 06	1.6243E 06	
19	48.36	53.52	171.5	306.9	1.000E-06	307.0	299.6	1.000E-06	299.5	1.8297E 06	2.0086E 06	
20	55.36 45.41	59.80 53.37	151.2									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20=SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 71

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	43.00 56.04	55.15 55.80	141.2	249.6	1.000E-06	249.7	255.2	1.000E-06	255.1	1.3941E 06	1.2304E 06	
2	48.28	55.30	160.4	250.7	1.000E-06	250.8	250.5	1.000E-06	250.4	1.1732E 06	1.1889E 06	
3	48.26	55.30	158.7	242.9	1.000E-06	243.0	242.7	1.000E-06	242.6	1.0920E 06	1.1060E 06	
4	48.23	55.31	156.9	236.6	1.000E-06	236.6	236.4	1.000E-06	236.3	1.0277E 06	1.0391E 06	
5	48.20	55.31	155.4	231.8	1.000E-06	231.8	231.7	1.000E-06	231.6	9.8067E 05	9.8770E 05	
6	48.05	55.20	154.3	227.9	1.000E-06	227.9	227.8	1.000E-06	227.8	9.4002E 05	9.4636E 05	
7	48.04	55.21	153.5	225.4	1.000E-06	225.5	225.4	1.000E-06	225.4	9.1700E 05	9.2022E 05	
8	48.03	55.21	153.1	224.6	1.000E-06	224.6	224.6	1.000E-06	224.6	9.0998E 05	9.1081E 05	
9	48.03	55.21	153.0	224.6	1.000E-06	224.6	224.7	1.000E-06	224.6	9.1122E 05	9.0956E 05	
10	48.03	55.21	153.2	226.2	1.000E-06	226.3	226.4	1.000E-06	226.3	9.2970E 05	9.2389E 05	
11	48.04	55.21	153.9	230.1	1.000E-06	230.1	230.3	1.000E-06	230.2	9.7133E 05	9.6423E 05	
12	48.04	55.21	154.8	233.4	1.000E-06	233.5	233.6	1.000E-06	233.6	1.0051E 06	9.9616E 05	
13	48.05	55.20	155.9	238.7	1.000E-06	238.8	238.9	1.000E-06	238.9	1.0619E 06	1.0541E 06	
14	48.21	55.31	157.2	242.7	1.000E-06	242.8	243.0	1.000E-06	242.9	1.1040E 06	1.0941E 06	
15	48.22	55.31	158.4	248.5	1.000E-06	248.6	248.9	1.000E-06	248.9	1.1658E 06	1.1471E 06	
16	48.25	55.31	160.9	261.3	1.000E-06	261.4	261.9	1.000E-06	261.8	1.3092E 06	1.2825E 06	
17	48.29	55.30	164.8	277.2	1.000E-06	277.3	278.0	1.000E-06	277.9	1.4852E 06	1.4510E 06	
18	48.35	55.29	169.9	297.6	1.000E-06	297.7	298.4	1.000E-06	298.3	1.7151E 06	1.6804E 06	
19	48.42	55.29	176.0	314.6	1.000E-06	314.7	307.9	1.000E-06	307.8	1.9037E 06	2.0659E 06	
20	54.26 45.38	60.66 55.15	153.0									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 75

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBLK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
	45.35 56.05	56.94 57.41	142.4									
1				253.5	1.000E-06	253.6	259.5	1.000E-06	259.4	1.4371E 06	1.2598E 06	
2	48.32	57.06	163.8	255.3	1.000E-06	255.4	255.0	1.000E-06	255.0	1.2056E 06	1.2216E 06	
3	48.30	57.07	161.6	247.4	1.000E-06	247.4	247.1	1.000E-06	247.1	1.1221E 06	1.1365E 06	
4	48.26	57.08	159.6	240.8	1.000E-06	240.9	240.6	1.000E-06	240.6	1.0556E 06	1.0683E 06	
5	48.24	57.08	158.0	235.9	1.000E-06	235.9	235.8	1.000E-06	235.7	1.0073E 06	1.0154E 06	
6	48.08	56.96	156.8									
7	48.07	56.96	155.9	231.8	1.000E-06	231.9	231.7	1.000E-06	231.7	9.6568E 05	9.7274E 05	
8	48.06	56.97	155.4	229.3	1.000E-06	229.4	229.3	1.000E-06	229.2	9.4216E 05	9.4574E 05	
9	48.06	56.97	155.3	228.4	1.000E-06	228.4	228.4	1.000E-06	228.4	9.3507E 05	9.3599E 05	
10	48.06	56.97	155.5	228.4	1.000E-06	228.5	228.5	1.000E-06	228.4	9.3644E 05	9.3458E 05	
				230.1	1.000E-06	230.1	230.3	1.000E-06	230.2	9.5560E 05	9.4912E 05	
11	48.07	56.96	156.3									
12	48.07	56.96	157.3	234.1	1.000E-06	234.1	234.3	1.000E-06	234.2	9.9845E 05	9.9053E 05	
13	48.08	56.96	158.6	237.5	1.000E-06	237.6	237.8	1.000E-06	237.7	1.0332E 06	1.0232E 06	
14	48.24	57.08	159.9	243.0	1.000E-06	243.1	243.3	1.000E-06	243.2	1.0916E 06	1.0828E 06	
15	48.26	57.08	161.3	247.2	1.000E-06	247.3	247.5	1.000E-06	247.4	1.1343E 06	1.1243E 06	
				253.0	1.000E-06	253.1	253.5	1.000E-06	253.5	1.1981E 06	1.1786E 06	
16	48.28	57.07	164.1									
17	48.33	57.06	168.3	266.2	1.000E-06	266.3	266.9	1.000E-06	266.8	1.3467E 06	1.3166E 06	
18	48.40	57.06	173.9	282.5	1.000E-06	282.6	283.4	1.000E-06	283.3	1.5262E 06	1.4910E 06	
19	48.47	57.05	186.5	303.3	1.000E-06	303.4	304.3	1.000E-06	304.2	1.7647E 06	1.7245E 06	
20	53.20	61.47	154.8	321.5	1.000E-06	321.6	315.6	1.000E-06	315.4	1.9665E 06	2.1125E 06	
	45.35	56.94										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 79

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBLK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
	45.29 56.06	58.71 59.01	143.5									
1				256.9	1.000E-06	256.9	263.3	1.000E-06	263.2	1.4733E 06	1.2817E 06	
2	48.36	58.82	167.0	259.4	1.000E-06	259.5	259.1	1.000E-06	259.0	1.2310E 06	1.2484E 06	
3	48.34	58.83	164.6	251.3	1.000E-06	251.3	251.0	1.000E-06	250.9	1.1458E 06	1.1615E 06	
4	48.30	58.84	162.4	244.6	1.000E-06	244.7	244.4	1.000E-06	244.3	1.0784E 06	1.0911E 06	
5	48.27	58.84	160.6	239.6	1.000E-06	239.6	239.4	1.000E-06	239.4	1.0288E 06	1.0374E 06	
6	48.12	58.72	159.3									
7	48.10	58.72	158.3	235.4	1.000E-06	235.5	235.3	1.000E-06	235.3	9.8617E 05	9.9398E 05	
8	48.09	58.72	157.8	232.8	1.000E-06	232.9	232.8	1.000E-06	232.7	9.8224E 05	9.8623E 05	
9	48.09	58.72	157.7	231.9	1.000E-06	231.9	231.9	1.000E-06	231.8	9.5513E 05	9.5615E 05	
10	48.09	58.72	157.9	231.9	1.000E-06	231.9	232.0	1.000E-06	231.9	9.5667E 05	9.5459E 05	
				233.6	1.000E-06	233.7	233.8	1.000E-06	233.8	9.7642E 05	9.6925E 05	
11	48.10	58.72	158.8									
12	48.10	58.72	159.9	237.7	1.000E-06	237.8	238.0	1.000E-06	237.9	1.0203E 06	1.0115E 06	
13	48.12	58.72	161.3	241.3	1.000E-06	241.3	241.6	1.000E-06	241.5	1.0554E 06	1.0453E 06	
14	48.27	58.84	162.7	246.8	1.000E-06	246.9	247.1	1.000E-06	247.0	1.1150E 06	1.1062E 06	
15	48.29	58.84	164.3	251.1	1.000E-06	251.1	251.4	1.000E-06	251.3	1.1592E 06	1.1481E 06	
				257.1	1.000E-06	257.2	257.6	1.000E-06	257.6	1.2248E 06	1.2030E 06	
16	48.32	58.83	167.3									
17	48.38	58.83	172.0	270.6	1.000E-06	270.7	271.3	1.000E-06	271.2	1.3763E 06	1.3442E 06	
18	48.46	58.82	178.1	287.2	1.000E-06	287.3	288.1	1.000E-06	288.0	1.5803E 06	1.5218E 06	
19	48.53	58.81	185.2	308.6	1.000E-06	308.8	309.8	1.000E-06	309.7	1.8073E 06	1.7570E 06	
20	51.69	61.84	156.6	328.6	1.000E-06	328.7	323.7	1.000E-06	323.6	2.0235E 06	2.1434E 06	
	45.29	58.71										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 83

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR-FT2	Q / A BTU/HR-FT2	WINDOW
	45.26 56.08	60.49 60.62	144.7									
1				260.1	1.000E+06	260.2	267.1	1.000E+06	267.0	1.2094E 06	1.3032E 06	
2	48.41	60.58	170.2	263.5	1.000E+06	263.6	263.2	1.000E+06	263.1	1.2562E 06	1.2751E 06	
3	48.38	60.59	167.6	255.2	1.000E+06	255.2	254.9	1.000E+06	254.8	1.1691E 06	1.1864E 06	
4	48.34	60.60	165.2	248.3	1.000E+06	248.4	248.1	1.000E+06	248.0	1.1004E 06	1.1145E 06	
5	48.30	60.60	163.3	243.1	1.000E+06	243.2	243.0	1.000E+06	242.9	1.0502E 06	1.0592E 06	
6	48.15	60.47	161.9	238.9	1.000E+06	239.0	238.8	1.000E+06	238.8	1.0069E 06	1.0147E 06	
7	48.13	60.47	160.8	236.3	1.000E+06	236.4	236.3	1.000E+06	236.2	9.8242E 05	9.8642E 05	
8	48.12	60.47	160.3	235.3	1.000E+06	235.4	235.4	1.000E+06	235.3	9.7509E 05	9.7612E 05	
9	48.12	60.47	160.1	235.4	1.000E+06	235.4	235.5	1.000E+06	235.4	9.7668E 05	9.7460E 05	
10	48.12	60.47	160.4	237.1	1.000E+06	237.2	237.3	1.000E+06	237.3	9.9681E 05	9.8962E 05	
11	48.13	60.47	161.4	241.3	1.000E+06	241.3	241.5	1.000E+06	241.4	1.0416E 06	1.0327E 06	
12	48.13	60.47	162.5	244.9	1.000E+06	245.0	245.2	1.000E+06	245.1	1.0770E 06	1.0668E 06	
13	48.15	60.47	164.0	250.6	1.000E+06	250.7	250.9	1.000E+06	250.8	1.1388E 06	1.1289E 06	
14	48.31	60.60	165.6	255.0	1.000E+06	255.0	255.3	1.000E+06	255.2	1.1839E 06	1.1716E 06	
15	48.33	60.60	167.3	261.2	1.000E+06	261.3	261.8	1.000E+06	261.7	1.2512E 06	1.2274E 06	
16	48.36	60.59	170.5	274.9	1.000E+06	275.0	275.7	1.000E+06	275.6	1.4055E 06	1.3719E 06	
17	48.43	60.58	175.6	292.0	1.000E+06	292.1	293.0	1.000E+06	292.9	1.5962E 06	1.5504E 06	
18	48.51	60.58	182.3	314.2	1.000E+06	314.3	315.5	1.000E+06	315.4	1.8485E 06	1.7902E 06	
19	48.59	60.56	190.0	335.2	1.000E+06	335.4	336.9	1.000E+06	336.8	2.0733E 06	2.1808E 06	
20	50.73	62.53	158.5									
	45.26	60.49										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 87

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR-FT2	Q / A BTU/HR-FT2	WINDOW
	45.23 56.10	62.27 62.22	145.9									
1				262.3	1.000E+06	262.4	269.7	1.000E+06	269.6	1.5310E 06	1.3113E 06	
2	48.46	62.34	173.4	266.6	1.000E+06	266.7	266.3	1.000E+06	266.2	1.2697E 06	1.2883E 06	
3	48.43	62.35	170.7	258.2	1.000E+06	258.3	257.9	1.000E+06	257.8	1.1808E 06	1.1995E 06	
4	48.38	62.35	168.1	251.2	1.000E+06	251.3	251.0	1.000E+06	250.9	1.1114E 06	1.1269E 06	
5	48.34	62.36	166.0	245.9	1.000E+06	246.0	245.8	1.000E+06	245.7	1.0608E 06	1.0709E 06	
6	48.18	62.22	164.5	241.7	1.000E+06	241.7	241.5	1.000E+06	241.5	1.0171E 06	1.0258E 06	
7	48.17	62.22	163.3	238.9	1.000E+06	239.0	238.9	1.000E+06	238.9	9.9260E 05	9.9701E 05	
8	48.16	62.22	162.7	238.0	1.000E+06	238.0	238.0	1.000E+06	237.9	9.8536E 05	9.8649E 05	
9	48.15	62.22	162.6	238.0	1.000E+06	238.0	238.1	1.000E+06	238.0	9.8706E 05	9.8474E 05	
10	48.16	62.22	162.9	239.8	1.000E+06	239.8	240.0	1.000E+06	239.9	1.0076E 06	9.9970E 05	
11	48.16	62.22	163.9	244.0	1.000E+06	244.1	244.3	1.000E+06	244.2	1.0530E 06	1.0432E 06	
12	48.17	62.22	165.2	247.7	1.000E+06	247.8	248.0	1.000E+06	248.0	1.0897E 06	1.0775E 06	
13	48.18	62.22	166.8	253.5	1.000E+06	253.6	253.8	1.000E+06	253.8	1.1513E 06	1.1402E 06	
14	48.35	62.36	168.5	258.0	1.000E+06	258.1	258.4	1.000E+06	258.3	1.1969E 06	1.1835E 06	
15	48.37	62.35	170.3	264.3	1.000E+06	264.4	264.9	1.000E+06	264.8	1.2645E 06	1.2402E 06	
16	48.41	62.35	173.9	278.2	1.000E+06	278.3	279.1	1.000E+06	279.0	1.4224E 06	1.3844E 06	
17	48.48	62.34	179.4	295.7	1.000E+06	295.8	297.0	1.000E+06	296.9	1.6174E 06	1.5624E 06	
18	48.57	62.33	186.6	318.4	1.000E+06	318.5	319.6	1.000E+06	319.5	1.8666E 06	1.8106E 06	
19	48.65	62.31	194.9	339.8	1.000E+06	339.9	336.2	1.000E+06	336.0	2.1047E 06	2.1942E 06	
20	49.81	63.19	160.4									
	45.23	62.27										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 91

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR-FT2	Q / A BTU/MR-FT2	WINDOW
1	45.19	64.05	147.1									*
2	48.50	64.09	176.6	264.5	1.000E-06	264.6	272.4	1.000E-06	272.3	1.5524E 06	1.3187E 06	*
3	48.48	64.10	173.8	269.6	1.000E-06	269.7	269.3	1.000E-06	269.2	1.2818E 06	1.3021E 06	*
4	48.43	64.11	171.0	261.2	1.000E-06	261.2	260.8	1.000E-06	260.8	1.1926E 06	1.2119E 06	*
5	48.38	64.11	168.8	254.1	1.000E-06	254.2	253.9	1.000E-06	253.8	1.1224E 06	1.1387E 06	*
				248.8	1.000E-06	248.8	248.6	1.000E-06	248.5	1.0710E 06	1.0823E 06	*
6	48.22	63.96	167.1									*
7	48.20	63.96	165.9	244.4	1.000E-06	244.4	244.2	1.000E-06	244.2	1.0271E 06	1.0365E 06	*
8	48.19	63.97	165.3	241.6	1.000E-06	241.7	241.6	1.000E-06	241.5	1.0025E 06	1.0073E 06	*
9	48.19	63.97	165.1	240.6	1.000E-06	240.7	240.6	1.000E-06	240.6	9.9528E 05	9.9692E 05	*
10	48.19	63.97	165.4	240.6	1.000E-06	240.7	240.7	1.000E-06	240.7	9.9717E 05	9.9463E 05	*
				242.4	1.000E-06	242.5	242.7	1.000E-06	242.6	1.0182E 06	1.0095E 06	*
11	48.20	63.96	166.5									*
12	48.20	63.96	167.9	246.7	1.000E-06	246.8	247.0	1.000E-06	247.0	1.0641E 06	1.0534E 06	*
13	48.22	63.96	169.6	250.6	1.000E-06	250.6	250.9	1.000E-06	250.8	1.1013E 06	1.0879E 06	*
14	48.39	64.11	171.5	256.5	1.000E-06	256.5	256.8	1.000E-06	256.7	1.1631E 06	1.1517E 06	*
15	48.42	64.11	173.4	260.9	1.000E-06	261.0	261.3	1.000E-06	261.2	1.2091E 06	1.1954E 06	*
				267.3	1.000E-06	267.4	268.0	1.000E-06	267.9	1.2786E 06	1.2515E 06	*
16	48.46	64.10	177.2									*
17	48.53	64.09	183.2	281.6	1.000E-06	281.7	282.6	1.000E-06	282.5	1.4401E 06	1.3952E 06	*
18	48.63	64.07	190.9	299.6	1.000E-06	299.8	301.0	1.000E-06	300.9	1.6360E 06	1.5760E 06	*
19	48.72	64.05	199.8	322.5	1.000E-06	322.6	323.8	1.000E-06	323.7	1.8854E 06	1.8291E 06	*
20	48.92	63.80	162.3	344.3	1.000E-06	344.4	341.3	1.000E-06	341.2	2.1339E 06	2.2087E 06	*
	45.19	64.05										*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 95

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR-FT2	Q / A BTU/MR-FT2	WINDOW
1	48.14	65.81	148.3									*
2	48.55	65.83	179.9	266.0	1.000E-06	266.1	274.5	1.000E-06	274.4	1.5608E 06	1.3177E 06	*
3	48.53	65.84	176.9	272.3	1.000E-06	272.3	271.9	1.000E-06	271.8	1.2876E 06	1.3098E 06	*
4	48.47	65.86	174.0	263.7	1.000E-06	263.8	263.3	1.000E-06	263.2	1.1978E 06	1.2193E 06	*
5	48.43	65.86	171.6	256.6	1.000E-06	256.6	256.3	1.000E-06	256.2	1.1278E 06	1.1444E 06	*
				251.1	1.000E-06	251.2	251.0	1.000E-06	250.9	1.0765E 06	1.0879E 06	*
6	48.26	65.71	169.8									*
7	48.24	65.71	168.5	246.7	1.000E-06	246.8	246.6	1.000E-06	246.5	1.0320E 06	1.0423E 06	*
8	48.23	65.71	167.8	243.9	1.000E-06	244.0	243.9	1.000E-06	243.8	1.0075E 06	1.0127E 06	*
9	48.23	65.71	167.6	242.9	1.000E-06	242.9	242.9	1.000E-06	242.8	1.0004E 06	1.0017E 06	*
10	48.23	65.71	168.0	242.9	1.000E-06	243.0	243.0	1.000E-06	243.0	1.0025E 06	9.9970E 05	*
				244.8	1.000E-06	244.8	245.0	1.000E-06	245.0	1.0239E 06	1.0144E 06	*
11	48.24	65.71	169.2									*
12	48.24	65.71	170.6	249.1	1.000E-06	249.2	249.4	1.000E-06	249.4	1.0698E 06	1.0585E 06	*
13	48.27	65.71	172.5	253.0	1.000E-06	253.0	253.3	1.000E-06	253.2	1.1070E 06	1.0935E 06	*
14	48.43	65.86	174.5	258.9	1.000E-06	258.9	259.2	1.000E-06	259.1	1.1696E 06	1.1572E 06	*
15	48.46	65.86	176.6	263.4	1.000E-06	263.5	263.8	1.000E-06	263.7	1.2161E 06	1.2009E 06	*
				270.0	1.000E-06	270.1	270.7	1.000E-06	270.6	1.2869E 06	1.2563E 06	*
16	48.50	65.85	180.6									*
17	48.58	65.83	187.0	284.6	1.000E-06	284.7	285.7	1.000E-06	285.7	1.4509E 06	1.3990E 06	*
18	48.68	65.81	195.3	302.9	1.000E-06	303.0	304.3	1.000E-06	304.2	1.6440E 06	1.5847E 06	*
19	48.78	65.79	204.8	325.9	1.000E-06	326.0	327.5	1.000E-06	327.3	1.9011E 06	1.8326E 06	*
20	49.66	65.45	164.1	347.3	1.000E-06	347.4	343.0	1.000E-06	342.9	2.1304E 06	2.2347E 06	*
	45.14	65.81										*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 99

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	44.87 56.17	67.42 67.03	149.6	267.6	1.000E-06	267.7	276.7	1.000E-06	276.6	1.5783E 06	1.3082E 06	*
2	48.35	67.39	183.2	275.0	1.000E-06	275.1	274.6	1.000E-06	274.5	1.2860E 06	1.3119E 06	*
3	48.32	67.40	180.1	266.2	1.000E-06	266.3	265.8	1.000E-06	265.7	1.1970E 06	1.2204E 06	*
4	48.26	67.42	176.9	258.9	1.000E-06	259.0	258.6	1.000E-06	258.5	1.1271E 06	1.1459E 06	*
5	48.21	67.43	174.4	253.4	1.000E-06	253.5	253.2	1.000E-06	253.2	1.0762E 06	1.0886E 06	*
6	48.05	67.27	172.5	249.0	1.000E-06	249.0	248.8	1.000E-06	248.8	1.0321E 06	1.0425E 06	*
7	48.03	67.27	171.1	246.2	1.000E-06	246.2	246.1	1.000E-06	246.0	1.0076E 06	1.0129E 06	*
8	48.01	67.27	170.3	245.1	1.000E-06	245.2	245.2	1.000E-06	245.1	1.0006E 06	1.0019E 06	*
9	48.01	67.27	170.2	245.2	1.000E-06	245.2	245.3	1.000E-06	245.2	1.0026E 06	9.9987E 05	*
10	48.01	67.27	170.5	247.0	1.000E-06	247.1	247.3	1.000E-06	247.2	1.0240E 06	1.0145E 06	*
11	48.02	67.27	171.8	251.4	1.000E-06	251.4	251.7	1.000E-06	251.6	1.0703E 06	1.0585E 06	*
12	48.03	67.27	173.4	255.3	1.000E-06	255.3	255.6	1.000E-06	255.6	1.1078E 06	1.0931E 06	*
13	48.05	67.27	175.3	261.2	1.000E-06	261.3	261.6	1.000E-06	261.5	1.1705E 06	1.1567E 06	*
14	48.22	67.43	177.5	265.9	1.000E-06	266.0	266.3	1.000E-06	266.3	1.2171E 06	1.2003E 06	*
15	48.25	67.42	179.7	272.7	1.000E-06	272.8	273.6	1.000E-06	273.5	1.2897E 06	1.2540E 06	*
16	48.29	67.41	184.0	287.7	1.000E-06	287.7	288.9	1.000E-06	288.8	1.4528E 06	1.3976E 06	*
17	48.37	67.39	190.8	306.2	1.000E-06	306.3	307.6	1.000E-06	307.5	1.6460E 06	1.5832E 06	*
18	48.49	67.37	200.0	365.9	1.000E-06	366.1	367.6	1.000E-06	367.4	2.4425E 06	2.3718E 06	*
19	48.59	67.34	210.1	350.1	1.000E-06	350.3	344.3	1.000E-06	344.2	2.1114E 06	2.2544E 06	*
20	50.27 44.87	67.01 67.42	166.0									*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 103

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	44.54 56.17	68.54 68.22	150.5	268.8	1.000E-06	268.9	278.5	1.000E-06	278.4	1.5870E 06	1.2995E 06	*
2	48.07	68.47	185.7	277.4	1.000E-06	277.5	276.9	1.000E-06	276.8	1.2855E 06	1.3123E 06	*
3	48.04	68.48	182.5	268.4	1.000E-06	268.5	267.9	1.000E-06	267.9	1.1954E 06	1.2220E 06	*
4	47.98	68.50	179.2	260.9	1.000E-06	261.0	260.6	1.000E-06	260.5	1.1265E 06	1.1465E 06	*
5	47.93	68.51	178.5	255.3	1.000E-06	255.4	255.1	1.000E-06	255.0	1.0757E 06	1.0891E 06	*
6	47.77	68.34	174.5	250.8	1.000E-06	250.9	250.6	1.000E-06	250.6	1.0316E 06	1.0428E 06	*
7	47.74	68.35	173.0	247.9	1.000E-06	248.0	247.9	1.000E-06	247.8	1.0074E 06	1.0131E 06	*
8	47.73	68.35	172.3	246.9	1.000E-06	247.0	246.9	1.000E-06	246.9	1.0005E 06	1.0020E 06	*
9	47.73	68.35	172.1	246.9	1.000E-06	247.0	247.0	1.000E-06	247.0	1.0027E 06	9.9977E 05	*
10	47.73	68.35	172.5	248.8	1.000E-06	248.9	249.1	1.000E-06	249.0	1.0243E 06	1.0142E 06	*
11	47.74	68.35	173.8	253.2	1.000E-06	253.3	253.5	1.000E-06	253.5	1.0706E 06	1.0582E 06	*
12	47.75	68.35	175.4	257.2	1.000E-06	257.2	257.6	1.000E-06	257.5	1.1083E 06	1.0926E 06	*
13	47.77	68.34	177.5	263.2	1.000E-06	263.3	263.6	1.000E-06	263.5	1.1711E 06	1.1562E 06	*
14	47.94	68.51	179.7	268.1	1.000E-06	268.1	268.5	1.000E-06	268.5	1.2183E 06	1.1991E 06	*
15	47.97	68.50	182.1	275.1	1.000E-06	275.2	275.9	1.000E-06	275.9	1.2909E 06	1.2524E 06	*
16	48.01	68.49	186.6	290.1	1.000E-06	290.2	291.3	1.000E-06	291.2	1.4524E 06	1.3979E 06	*
17	48.10	68.47	193.7	309.0	1.000E-06	309.1	310.6	1.000E-06	310.5	1.6521E 06	1.5772E 06	*
18	48.22	68.44	203.8	370.5	1.000E-06	370.6	372.1	1.000E-06	372.0	2.4634E 06	2.3913E 06	*
19	48.32	68.41	214.3	350.9	1.000E-06	351.0	341.8	1.000E-06	341.6	2.0716E 06	2.2942E 06	*
20	52.77 44.54	69.67 68.54	167.3									*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 107

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	U / A BTU/HR*FT2	U / A BTU/HR*FT2	WINDOW
1	44.49 56.19	70.26 69.81	151.7									
2	48.11	70.16	189.0	269.8	1.000E-06	269.9	280.0	1.000E-06	280.0	1.5901E 06	1.2861E 06	
3	48.09	70.18	185.6	279.5	1.000E-06	279.6	279.0	1.000E-06	278.9	1.2801E 06	1.3085E 06	
4	48.02	70.20	182.1	270.5	1.000E-06	270.6	270.0	1.000E-06	269.9	1.1897E 06	1.2191E 06	
5	47.97	70.22	179.3	262.8	1.000E-06	262.9	262.4	1.000E-06	262.3	1.1209E 06	1.1441E 06	
				257.0	1.000E-06	257.1	256.8	1.000E-06	256.7	1.0712E 06	1.0860E 06	
6	47.81	70.04	177.2									
7	47.78	70.04	175.6	252.5	1.000E-06	252.5	252.3	1.000E-06	252.2	1.0276E 06	1.0396E 06	
8	47.77	70.05	174.8	249.5	1.000E-06	249.6	249.5	1.000E-06	249.4	1.0036E 06	1.0097E 06	
9	47.77	70.05	174.6	248.5	1.000E-06	248.5	248.5	1.000E-06	248.4	9.9692E 05	9.9848E 05	
10	47.77	70.05	175.0	248.5	1.000E-06	248.6	248.6	1.000E-06	248.6	9.9930E 05	9.9605E 05	
				250.4	1.000E-06	250.5	250.7	1.000E-06	250.7	1.0211E 06	1.0101E 06	
11	47.78	70.05	176.4									
12	47.79	70.04	178.2	254.9	1.000E-06	254.9	255.2	1.000E-06	255.1	1.0674E 06	1.0538E 06	
13	47.81	70.04	180.4	258.9	1.000E-06	259.0	259.3	1.000E-06	259.3	1.1052E 06	1.0879E 06	
14	47.98	70.21	182.7	265.1	1.000E-06	265.2	265.6	1.000E-06	265.5	1.1684E 06	1.1505E 06	
15	48.01	70.20	185.2	270.1	1.000E-06	270.2	270.6	1.000E-06	270.6	1.2149E 06	1.1939E 06	
				277.3	1.000E-06	277.4	278.2	1.000E-06	278.1	1.2879E 06	1.2467E 06	
16	48.06	70.19	190.0									
17	48.15	70.16	197.6	292.3	1.000E-06	292.4	293.5	1.000E-06	293.5	1.4474E 06	1.3929E 06	
18	48.28	70.13	208.8	311.4	1.000E-06	311.5	313.4	1.000E-06	313.3	1.6539E 06	1.5638E 06	
19	48.39	70.10	219.8	346.7	1.000E-06	346.9	348.6	1.000E-06	348.5	2.0638E 06	1.9794E 06	
20	51.46	69.97	169.0	354.4	1.000E-06	354.6	345.9	1.000E-06	345.7	2.0707E 06	2.2795E 06	
	44.49	70.26										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 111

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	U / A BTU/HR*FT2	U / A BTU/HR*FT2	WINDOW
1	44.23 56.08	71.84 71.31	153.0									
2	47.13	71.69	192.2	270.9	1.000E-06	271.0	281.6	1.000E-06	281.6	1.5908E 06	1.2709E 06	*
3	47.90	71.71	188.8	281.8	1.000E-06	281.9	281.3	1.000E-06	281.2	1.2744E 06	1.3011E 06	*
4	47.83	71.73	185.1	272.8	1.000E-06	272.9	272.3	1.000E-06	272.2	1.1826E 06	1.2141E 06	*
5	47.77	71.75	182.1	265.0	1.000E-06	265.1	264.6	1.000E-06	264.5	1.1142E 06	1.1395E 06	*
				259.1	1.000E-06	259.1	258.8	1.000E-06	258.7	1.0645E 06	1.0818E 06	*
6	47.61	71.57	179.9									*
7	47.58	71.58	178.2	254.3	1.000E-06	254.4	254.1	1.000E-06	254.1	1.0220E 06	1.0350E 06	*
8	47.57	71.58	177.4	251.4	1.000E-06	251.4	251.3	1.000E-06	251.2	9.9831E 05	1.0049E 06	*
9	47.57	71.58	177.2	250.3	1.000E-06	250.3	250.3	1.000E-06	250.2	9.9185E 05	9.9353E 05	*
10	47.57	71.58	177.6	250.3	1.000E-06	250.4	250.4	1.000E-06	250.4	9.9442E 05	9.9092E 05	*
				252.3	1.000E-06	252.3	252.6	1.000E-06	252.5	1.0165E 06	1.0046E 06	*
11	47.58	71.58	179.1									*
12	47.58	71.58	180.9	256.8	1.000E-06	256.8	257.2	1.000E-06	257.1	1.0629E 06	1.0476E 06	*
13	47.61	71.57	183.2	261.0	1.000E-06	261.0	261.5	1.000E-06	261.4	1.1010E 06	1.0812E 06	*
14	47.78	71.75	185.7	267.3	1.000E-06	267.4	267.8	1.000E-06	267.7	1.1634E 06	1.1440E 06	*
15	47.81	71.74	188.4	272.4	1.000E-06	272.5	273.0	1.000E-06	272.9	1.2097E 06	1.1870E 06	*
				279.6	1.000E-06	279.7	280.5	1.000E-06	280.4	1.2890E 06	1.2411E 06	*
16	47.87	71.72	193.5									*
17	47.96	71.69	201.5	294.6	1.000E-06	294.7	296.0	1.000E-06	295.9	1.4435E 06	1.3825E 06	*
18	48.10	71.66	213.2	314.1	1.000E-06	314.2	316.3	1.000E-06	316.2	1.6496E 06	1.5520E 06	*
19	48.21	71.62	224.7	339.2	1.000E-06	339.3	341.4	1.000E-06	341.2	1.8994E 06	1.8030E 06	*
20	51.80	71.35	170.7	356.7	1.000E-06	356.9	346.7	1.000E-06	346.6	2.0427E 06	2.2857E 06	*
	44.23	71.84										*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 115

DX = 0,02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	44,20 56,25	73,55 73,01	154,3	271,1	1,000E-06	271,2	282,4	1,000E-06	282,4	1,5867E 06	1,2505E 06	*
2	47,97	73,36	195,4	283,3	1,000E-06	283,3	282,8	1,000E-06	282,7	1,2634E 06	1,2901E 06	*
3	47,94	73,36	192,0	274,4	1,000E-06	274,5	273,8	1,000E-06	273,8	1,1724E 06	1,2037E 06	*
4	47,87	73,41	188,1	266,6	1,000E-06	266,7	266,1	1,000E-06	266,1	1,1039E 06	1,1307E 06	*
5	47,82	73,43	184,9	260,6	1,000E-06	260,7	260,3	1,000E-06	260,2	1,0945E 06	1,0733E 06	*
6	47,65	73,24	182,6	255,8	1,000E-06	255,8	255,5	1,000E-06	255,5	1,0121E 06	1,0271E 06	*
7	47,62	73,25	180,8	252,7	1,000E-06	252,8	252,6	1,000E-06	252,6	9,8918E 05	9,9679E 05	*
8	47,61	73,25	179,9	251,6	1,000E-06	251,6	251,6	1,000E-06	251,5	9,8323E 05	9,8504E 05	*
9	47,61	73,25	179,7	251,6	1,000E-06	251,7	251,7	1,000E-06	251,7	9,8606E 05	9,8218E 05	*
10	47,61	73,25	180,2	253,6	1,000E-06	253,7	254,0	1,000E-06	253,9	1,0087E 06	9,9502E 05	*
11	47,61	73,25	181,7	258,2	1,000E-06	258,3	258,6	1,000E-06	258,6	1,0947E 06	1,0377E 06	*
12	47,62	73,25	183,7	262,5	1,000E-06	262,6	263,0	1,000E-06	263,0	1,0923E 06	1,0711E 06	*
13	47,65	73,24	186,1	268,9	1,000E-06	269,0	269,4	1,000E-06	269,4	1,1542E 06	1,1332E 06	*
14	47,82	73,43	188,7	274,1	1,000E-06	274,1	274,6	1,000E-06	274,5	1,1993E 06	1,1768E 06	*
15	47,86	73,41	191,5	281,2	1,000E-06	281,2	282,1	1,000E-06	282,0	1,2707E 06	1,2295E 06	*
16	47,91	73,39	196,9	296,3	1,000E-06	296,4	297,8	1,000E-06	297,7	1,4356E 06	1,3661E 06	*
17	48,01	73,36	205,3	316,2	1,000E-06	316,3	318,4	1,000E-06	318,3	1,6384E 06	1,5356E 06	*
18	48,16	73,32	217,6	341,4	1,000E-06	341,6	343,8	1,000E-06	343,7	1,8883E 06	1,7821E 06	*
19	48,27	73,27	229,6	357,8	1,000E-06	357,9	346,0	1,000E-06	345,9	2,0029E 06	2,2883E 06	*
20	52,57 44,20	73,04 73,55	172,3									*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 116

DX = 0,02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	43,96 56,13	73,84 73,31	154,6	271,5	1,000E-06	271,6	282,9	1,000E-06	282,9	1,5855E 06	1,2445E 06	*
2	47,73	73,62	196,2	283,9	1,000E-06	284,0	283,5	1,000E-06	283,4	1,2600E 06	1,2869E 06	*
3	47,71	73,64	192,7	275,1	1,000E-06	275,2	274,5	1,000E-06	274,5	1,1696E 06	1,2005E 06	*
4	47,64	73,67	185,8	267,3	1,000E-06	267,4	266,8	1,000E-06	266,8	1,1005E 06	1,1280E 06	*
5	47,58	73,69	185,6	261,3	1,000E-06	261,3	260,9	1,000E-06	260,9	1,0516E 06	1,0708E 06	*
6	47,42	73,59	183,2	256,4	1,000E-06	256,5	256,2	1,000E-06	256,1	1,0095E 06	1,0246E 06	*
7	47,39	73,51	181,5	253,3	1,000E-06	253,4	253,2	1,000E-06	253,2	9,8659E 05	9,9434E 05	*
8	47,37	73,52	180,6	252,2	1,000E-06	252,2	252,2	1,000E-06	252,1	9,8066E 05	9,8263E 05	*
9	47,37	73,52	180,3	252,2	1,000E-06	252,3	252,4	1,000E-06	252,3	9,8369E 05	9,7954E 05	*
10	47,37	73,52	180,8	254,2	1,000E-06	254,3	254,6	1,000E-06	254,5	1,0062E 06	9,9243E 05	*
11	47,38	73,51	182,4	258,9	1,000E-06	258,9	259,3	1,000E-06	259,2	1,0521E 06	1,0350E 06	*
12	47,39	73,51	184,3	263,2	1,000E-06	263,3	263,7	1,000E-06	263,6	1,0897E 06	1,0682E 06	*
13	47,42	73,50	186,8	269,6	1,000E-06	269,7	270,1	1,000E-06	270,1	1,1514E 06	1,1302E 06	*
14	47,59	73,69	189,5	274,8	1,000E-06	274,8	275,3	1,000E-06	275,2	1,1960E 06	1,1741E 06	*
15	47,62	73,67	192,3	281,9	1,000E-06	281,9	282,8	1,000E-06	282,7	1,2679E 06	1,2260E 06	*
16	47,68	73,65	197,7	297,1	1,000E-06	297,2	298,6	1,000E-06	298,6	1,4328E 06	1,3617E 06	*
17	47,77	73,61	206,3	317,1	1,000E-06	317,2	319,3	1,000E-06	319,2	1,6348E 06	1,5311E 06	*
18	47,92	73,57	218,7	342,5	1,000E-06	342,6	344,8	1,000E-06	344,7	1,8846E 06	1,7766E 06	*
19	48,04	73,53	230,8	358,6	1,000E-06	358,7	346,5	1,000E-06	346,4	1,9933E 06	2,2869E 06	*
20	52,52 43,96	73,29 73,84	172,8									*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 117

DX = 0.00010 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	THLTK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	41.94 54.99	72.68 72.48	154.6	273.6	1.000E-06	273.7	285.2	1.000E-06	285.1	1.5877E 06	1.2421E 06	06
2	46.12	72.63	196.3	286.4	1.000E-06	286.5	286.0	1.000E-06	285.9	1.2606E 06	1.2864E 06	06
3	46.08	72.64	192.7	277.5	1.000E-06	277.6	277.0	1.000E-06	276.9	1.1704E 06	1.1997E 06	06
4	45.98	72.66	188.8	269.6	1.000E-06	269.7	269.2	1.000E-06	269.1	1.1011E 06	1.1274E 06	06
5	45.90	72.67	185.6	263.4	1.000E-06	263.5	263.1	1.000E-06	263.0	1.0511E 06	1.0713E 06	06
6	45.86	72.55	183.2	258.4	1.000E-06	258.5	258.2	1.000E-06	258.1	1.0097E 06	1.0243E 06	06
7	45.82	72.56	181.5	255.3	1.000E-06	255.4	255.2	1.000E-06	255.2	9.8671E 05	9.9416E 05	05
8	45.80	72.56	180.6	254.1	1.000E-06	254.2	254.2	1.000E-06	254.1	9.8066E 05	9.8256E 05	05
9	45.80	72.56	180.3	254.2	1.000E-06	254.2	254.3	1.000E-06	254.3	9.8366E 05	9.7962E 05	05
10	45.80	72.56	180.8	256.2	1.000E-06	256.3	256.6	1.000E-06	256.5	1.0060E 06	9.9261E 05	05
11	45.81	72.56	182.4	261.0	1.000E-06	261.0	261.4	1.000E-06	261.3	1.0518E 06	1.0352E 06	06
12	45.82	72.56	184.3	265.3	1.000E-06	265.4	265.8	1.000E-06	265.8	1.0893E 06	1.0685E 06	06
13	45.86	72.55	186.8	271.9	1.000E-06	272.0	272.5	1.000E-06	272.4	1.1520E 06	1.1296E 06	06
14	45.91	72.66	189.5	277.2	1.000E-06	277.3	277.7	1.000E-06	277.7	1.1955E 06	1.1740E 06	06
15	45.96	72.66	192.3	284.4	1.000E-06	284.5	285.3	1.000E-06	285.2	1.2670E 06	1.2268E 06	06
16	46.04	72.65	197.7	299.8	1.000E-06	299.9	301.3	1.000E-06	301.2	1.4314E 06	1.3631E 06	06
17	46.17	72.63	206.3	319.9	1.000E-06	320.0	322.0	1.000E-06	322.0	1.6315E 06	1.5344E 06	06
18	46.48	72.69	218.7	345.4	1.000E-06	345.5	347.7	1.000E-06	347.6	1.8829E 06	1.7783E 06	06
19	46.62	72.66	230.8	350.4	1.000E-06	350.5	324.0	1.000E-06	323.8	1.8213E 06	2.4589E 06	06
20	68.43 41.94	65.95 72.68	172.5									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 121

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	THLTK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	41.91 55.01	74.24 74.00	155.8	273.4	1.000E-06	273.5	285.5	1.000E-06	285.4	1.5738E 06	1.2135E 06	06
2	46.16	74.19	199.5	287.3	1.000E-06	287.4	286.8	1.000E-06	286.7	1.2405E 06	1.2688E 06	06
3	46.13	74.19	196.0	278.4	1.000E-06	278.5	277.9	1.000E-06	277.8	1.1520E 06	1.1824E 06	06
4	46.02	74.21	191.8	270.7	1.000E-06	270.8	270.2	1.000E-06	270.1	1.0844E 06	1.1105E 06	06
5	45.94	74.22	188.5	264.5	1.000E-06	264.6	264.2	1.000E-06	264.1	1.0343E 06	1.0561E 06	06
6	45.90	74.11	186.0	259.5	1.000E-06	259.5	259.2	1.000E-06	259.2	9.9388E 05	1.0095E 06	06
7	45.86	74.11	184.1	256.3	1.000E-06	256.4	256.2	1.000E-06	256.2	9.7155E 05	9.7953E 05	05
8	45.84	74.11	183.2	255.1	1.000E-06	255.2	255.2	1.000E-06	255.1	9.6581E 05	9.6784E 05	05
9	45.83	74.11	182.9	255.2	1.000E-06	255.3	255.3	1.000E-06	255.3	9.6896E 05	9.6470E 05	05
10	45.84	74.11	183.4	257.3	1.000E-06	257.3	257.6	1.000E-06	257.6	9.9140E 05	9.7707E 05	05
11	45.85	74.11	185.1	262.0	1.000E-06	262.1	262.4	1.000E-06	262.4	1.0367E 06	1.0189E 06	06
12	45.86	74.11	187.2	266.4	1.000E-06	266.5	267.0	1.000E-06	266.9	1.0738E 06	1.0515E 06	06
13	45.90	74.11	189.7	272.9	1.000E-06	273.0	273.5	1.000E-06	273.4	1.1341E 06	1.1131E 06	06
14	45.95	74.22	192.8	278.1	1.000E-06	278.2	278.7	1.000E-06	278.6	1.1783E 06	1.1561E 06	06
15	46.00	74.21	195.5	285.4	1.000E-06	285.4	286.4	1.000E-06	286.3	1.2505E 06	1.2058E 06	06
16	46.08	74.20	201.2	301.0	1.000E-06	301.1	302.7	1.000E-06	302.6	1.4140E 06	1.3384E 06	06
17	46.22	74.18	210.2	321.4	1.000E-06	321.5	323.7	1.000E-06	323.6	1.6112E 06	1.5070E 06	06
18	46.54	74.25	223.1	347.0	1.000E-06	347.1	349.4	1.000E-06	349.3	1.8578E 06	1.7482E 06	06
19	46.68	74.21	235.5	351.8	1.000E-06	351.9	325.1	1.000E-06	325.0	1.7867E 06	2.4289E 06	06
20	67.36 41.91	86.81 74.24	174.1									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20=SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 125

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	YBULK DEG, F.	TSURFACE DEG, F.	FILMTH INCHES	TINTFACE DEG, F.	TINTFACE DEG, F.	FILMTH INCHES	TSURFACE DEG, F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	41.88 55.02	75.79 75.52	157.1	273.2	1.000E+06	273.3	285.9	1.000E+06	285.8	1.5604E 06	1.1836E 06	06
2	46.21	75.73	202.8	288.3	1.000E+06	288.4	287.8	1.000E+06	287.7	1.2195E 06	1.2501E 06	06
3	46.17	75.74	199.1	279.4	1.000E+06	279.4	278.8	1.000E+06	278.7	1.1325E 06	1.1696E 06	06
4	46.07	75.75	194.8	271.6	1.000E+06	271.7	271.1	1.000E+06	271.0	1.0672E 06	1.0937E 06	06
5	45.98	75.77	191.3	265.5	1.000E+06	265.6	265.2	1.000E+06	265.1	1.0181E 06	1.0399E 06	06
6	45.94	75.65	186.7	260.5	1.000E+06	260.6	260.2	1.000E+06	260.2	9.7781E 05	9.9445E 05	05
7	45.90	75.66	186.7	257.3	1.000E+06	257.4	257.2	1.000E+06	257.2	9.5614E 05	9.6466E 05	05
8	45.87	75.66	185.8	256.1	1.000E+06	256.2	256.2	1.000E+06	256.1	9.5075E 05	9.5290E 05	05
9	45.87	75.66	185.5	256.2	1.000E+06	256.2	256.3	1.000E+06	256.3	9.5408E 05	9.4952E 05	05
10	45.87	75.66	186.0	258.3	1.000E+06	258.3	258.7	1.000E+06	258.6	9.7661E 05	9.6134E 05	05
11	45.88	75.66	187.8	263.0	1.000E+06	263.1	263.5	1.000E+06	263.4	1.0214E 06	1.0023E 06	06
12	45.90	75.66	184.9	267.4	1.000E+06	267.5	267.9	1.000E+06	267.8	1.0566E 06	1.0357E 06	06
13	45.94	75.65	190.6	273.8	1.000E+06	273.8	274.3	1.000E+06	274.2	1.1175E 06	1.0949E 06	06
14	45.99	75.76	195.6	279.0	1.000E+06	279.1	279.6	1.000E+06	279.6	1.1011E 06	1.1369E 06	06
15	46.05	75.76	198.7	286.4	1.000E+06	286.5	287.6	1.000E+06	287.5	1.2344E 06	1.1838E 06	06
16	46.13	75.75	204.7	302.2	1.000E+06	302.3	304.0	1.000E+06	303.9	1.3946E 06	1.3151E 06	06
17	46.27	75.73	214.1	322.8	1.000E+06	322.9	325.3	1.000E+06	325.2	1.5919E 06	1.4780E 06	06
18	46.60	75.80	227.5	348.6	1.000E+06	348.7	351.0	1.000E+06	350.9	1.8318E 06	1.7182E 06	06
19	46.75	75.76	240.1	353.1	1.000E+06	353.2	326.2	1.000E+06	326.0	1.7513E 06	2.3990E 06	06
20	66.33 41.88	87.62 75.79	175.4									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20=SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 125

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	YBULK DEG, F.	TSURFACE DEG, F.	FILMTH INCHES	TINTFACE DEG, F.	TINTFACE DEG, F.	FILMTH INCHES	TSURFACE DEG, F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	41.84 59.04	77.34 77.01	150.3	272.6	1.000E+06	272.7	285.8	1.000E+06	285.8	1.5404E 06	1.1446E 06	06
2	46.25	77.27	205.9	289.0	1.000E+06	289.1	288.4	1.000E+06	288.3	1.1930E 06	1.2252E 06	06
3	46.22	77.28	202.3	280.0	1.000E+06	280.1	279.3	1.000E+06	279.2	1.1067E 06	1.1437E 06	06
4	46.11	77.30	197.8	272.1	1.000E+06	272.2	271.6	1.000E+06	271.5	1.0437E 06	1.0723E 06	06
5	46.02	77.31	194.1	266.0	1.000E+06	266.1	265.6	1.000E+06	265.6	9.9666E 05	1.0186E 06	06
6	45.98	77.20	191.3	261.1	1.000E+06	261.2	260.8	1.000E+06	260.8	9.5747E 05	9.7382E 05	05
7	45.93	77.20	189.3	258.0	1.000E+06	258.1	257.9	1.000E+06	257.8	9.3593E 05	9.4501E 05	05
8	45.91	77.21	188.3	256.8	1.000E+06	256.8	256.6	1.000E+06	256.7	9.3092E 05	9.3322E 05	05
9	45.91	77.21	188.0	256.8	1.000E+06	256.9	257.0	1.000E+06	256.9	9.3447E 05	9.2962E 05	05
10	45.91	77.21	188.6	258.9	1.000E+06	259.0	259.3	1.000E+06	259.2	9.5677E 05	9.4094E 05	05
11	45.92	77.20	190.4	263.6	1.000E+06	263.6	264.0	1.000E+06	263.9	9.9978E 05	9.8188E 05	05
12	45.94	77.20	192.6	267.8	1.000E+06	267.9	268.4	1.000E+06	268.3	1.0357E 06	1.0132E 06	06
13	45.98	77.20	195.5	274.2	1.000E+06	274.3	274.8	1.000E+06	274.7	1.0954E 06	1.0710E 06	06
14	46.03	77.31	198.5	279.6	1.000E+06	279.6	280.2	1.000E+06	280.1	1.1388E 06	1.1115E 06	06
15	46.09	77.30	201.8	287.2	1.000E+06	287.2	288.4	1.000E+06	288.3	1.2114E 06	1.1565E 06	06
16	46.17	77.29	208.1	303.0	1.000E+06	303.1	304.9	1.000E+06	304.8	1.3686E 06	1.2848E 06	06
17	46.31	77.27	217.9	323.7	1.000E+06	323.8	326.4	1.000E+06	326.3	1.5646E 06	1.4414E 06	06
18	46.66	77.35	231.9	349.5	1.000E+06	349.6	352.0	1.000E+06	351.9	1.7961E 06	1.6801E 06	06
19	46.81	77.31	244.6	353.6	1.000E+06	353.7	326.5	1.000E+06	326.4	1.7060E 06	2.3581E 06	06
20	65.34 41.84	88.38 77.34	176.7									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 133

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
	41.81 55.06	78.88 78.56										
1			159.6	271.9	1.000E+06	272.0	285.7	1.000E+06	285.7	1.5200E 06	1.1094E 06	
2	46.30	78.81	209.0	289.6	1.000E+06	289.7	289.0	1.000E+06	288.9	1.1667E 06	1.1997E 06	
3	46.26	78.82	205.3	280.6	1.000E+06	280.7	279.8	1.000E+06	279.8	1.0806E 06	1.1214E 06	
4	46.15	78.84	200.6	272.6	1.000E+06	272.7	272.0	1.000E+06	271.9	1.0197E 06	1.0509E 06	
5	46.06	78.85	196.8	266.5	1.000E+06	266.5	266.0	1.000E+06	266.0	9.7420E 05	9.9779E 05	
6	46.01	78.74	193.9	261.6	1.000E+06	261.6	261.3	1.000E+06	261.2	9.3654E 05	9.5332E 05	
7	45.97	78.75	191.8	258.5	1.000E+06	258.5	258.4	1.000E+06	258.3	9.1599E 05	9.2458E 05	
8	45.95	78.75	190.7	257.3	1.000E+06	257.4	257.3	1.000E+06	257.3	9.1097E 05	9.1314E 05	
9	45.94	78.75	190.5	257.4	1.000E+06	257.4	257.5	1.000E+06	257.5	9.1435E 05	9.0970E 05	
10	45.95	78.75	191.0	259.4	1.000E+06	259.4	259.8	1.000E+06	259.7	9.3615E 05	9.2082E 05	
11	45.96	78.75	192.9	263.9	1.000E+06	264.0	264.4	1.000E+06	264.3	9.7918E 05	9.5990E 05	
12	45.97	78.75	195.3	268.3	1.000E+06	268.3	268.8	1.000E+06	268.8	1.0145E 06	9.9039E 05	
13	46.01	78.74	198.2	274.7	1.000E+06	274.8	275.3	1.000E+06	275.3	1.0735E 06	1.0464E 06	
14	46.07	78.85	201.4	280.2	1.000E+06	280.2	280.9	1.000E+06	280.8	1.1161E 06	1.0860E 06	
15	46.13	78.84	204.9	287.9	1.000E+06	288.0	289.2	1.000E+06	289.1	1.1875E 06	1.1296E 06	
16	46.22	78.83	211.4	303.8	1.000E+06	303.9	305.7	1.000E+06	305.7	1.3430E 06	1.2535E 06	
17	46.36	78.80	221.6	324.6	1.000E+06	324.7	327.5	1.000E+06	327.4	1.5363E 06	1.4052E 06	
18	46.73	78.89	236.1	350.4	1.000E+06	350.5	353.0	1.000E+06	352.9	1.7603E 06	1.6414E 06	
19	46.87	78.85	249.0	354.1	1.000E+06	354.2	326.8	1.000E+06	326.6	1.8598E 06	2.3171E 06	
20	64.37	89.11	177.9									
	41.81	78.88										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 137

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
	41.77 55.07	80.42 80.08										
1			160.8	270.7	1.000E+06	270.8	285.1	1.000E+06	285.0	1.4929E 06	1.0651E 06	
2	46.34	80.34	212.0	289.8	1.000E+06	289.8	289.2	1.000E+06	289.1	1.1346E 06	1.1676E 06	
3	46.31	80.35	208.3	280.9	1.000E+06	281.0	280.1	1.000E+06	280.0	1.0495E 06	1.0928E 06	
4	46.19	80.37	203.4	272.8	1.000E+06	272.9	272.1	1.000E+06	272.1	9.8981E 05	1.0246E 06	
5	46.10	80.39	199.5	266.5	1.000E+06	266.6	266.1	1.000E+06	266.0	9.4659E 05	9.7186E 05	
6	46.05	80.28	196.5	261.6	1.000E+06	261.7	261.3	1.000E+06	261.2	9.1030E 05	9.2825E 05	
7	46.01	80.28	194.3	258.5	1.000E+06	258.6	258.4	1.000E+06	258.3	8.9073E 05	8.9991E 05	
8	45.98	80.29	193.2	257.3	1.000E+06	257.4	257.3	1.000E+06	257.3	8.8612E 05	8.8843E 05	
9	45.98	80.29	192.9	257.4	1.000E+06	257.4	257.5	1.000E+06	257.5	8.8075E 05	8.8482E 05	
10	45.98	80.29	193.5	259.4	1.000E+06	259.5	259.8	1.000E+06	259.8	9.1149E 05	8.9512E 05	
11	45.99	80.29	195.4	264.0	1.000E+06	264.0	264.5	1.000E+06	264.4	9.5353E 05	9.3298E 05	
12	46.01	80.28	197.9	268.3	1.000E+06	268.4	269.0	1.000E+06	268.9	9.8836E 05	9.6206E 05	
13	46.05	80.28	200.9	274.8	1.000E+06	274.9	275.5	1.000E+06	275.5	1.0461E 06	1.0162E 06	
14	46.11	80.39	204.3	280.4	1.000E+06	280.5	281.2	1.000E+06	281.1	1.0871E 06	1.0551E 06	
15	46.17	80.38	207.8	288.2	1.000E+06	288.3	289.5	1.000E+06	289.4	1.1573E 06	1.0969E 06	
16	46.26	80.36	214.6	304.1	1.000E+06	304.2	306.2	1.000E+06	306.1	1.3113E 06	1.2147E 06	
17	46.41	80.34	225.3	325.1	1.000E+06	325.2	328.0	1.000E+06	328.0	1.5000E 06	1.3618E 06	
18	46.79	80.43	240.2	350.7	1.000E+06	350.8	353.5	1.000E+06	353.2	1.7149E 06	1.5945E 06	
19	46.93	80.39	253.3	354.1	1.000E+06	354.2	327.1	1.000E+06	326.9	1.6085E 06	2.2604E 06	
20	62.96	89.40	179.2									
	41.77	80.42										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20=SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 141

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	VBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDOW
1	41.73 55.09	81.96 81.59	162.0									
2	46.38	81.87	214.9	268.9	1.000E+06	269.0	283.9	1.000E+06	283.8	1.4586E 06	1.0136E 06	
3	46.35	81.88	211.2	289.4	1.000E+06	289.5	288.8	1.000E+06	288.7	1.0960E 06	1.1280E 06	
4	46.23	81.90	206.2	280.7	1.000E+06	280.8	279.9	1.000E+06	279.8	1.0126E 06	1.0579E 06	
5	46.14	81.92	202.1	272.6	1.000E+06	272.7	271.9	1.000E+06	271.8	9.5493E 05	9.9198E 05	
6	46.09	81.82	198.9	266.3	1.000E+06	266.4	265.8	1.000E+06	265.7	9.1310E 05	9.4106E 05	
7	46.04	81.82	196.7	261.3	1.000E+06	261.4	261.0	1.000E+06	260.9	8.7890E 05	8.9804E 05	
8	46.02	81.82	195.5	258.2	1.000E+06	258.3	258.1	1.000E+06	258.0	8.6038E 05	8.7017E 05	
9	46.01	81.82	195.2	257.0	1.000E+06	257.1	257.0	1.000E+06	257.0	8.5632E 05	8.5879E 05	
10	46.02	81.82	195.8	257.1	1.000E+06	257.1	257.2	1.000E+06	257.2	8.6020E 05	8.5494E 05	
				259.1	1.000E+06	259.1	259.5	1.000E+06	259.5	8.8171E 05	8.6429E 05	
11	46.03	81.82	197.8									
12	46.04	81.82	200.4	263.6	1.000E+06	263.7	264.1	1.000E+06	264.1	9.2209E 05	9.0061E 05	
13	46.09	81.82	203.6	268.1	1.000E+06	268.1	268.7	1.000E+06	268.7	9.5707E 05	9.2806E 05	
14	46.15	81.92	207.0	274.6	1.000E+06	274.7	275.3	1.000E+06	275.3	1.0124E 06	9.8080E 05	
15	46.21	81.91	210.7	280.2	1.000E+06	280.3	281.0	1.000E+06	280.9	1.0721E 06	1.0184E 06	
				288.0	1.000E+06	288.1	289.4	1.000E+06	289.3	1.1210E 06	1.0577E 06	
16	46.30	81.89	217.8									
17	46.47	81.87	228.8	303.9	1.000E+06	303.9	306.1	1.000E+06	306.0	1.2725E 06	1.1608E 06	
18	46.84	81.97	244.2	324.9	1.000E+06	325.0	328.0	1.000E+06	327.9	1.4548E 06	1.3110E 06	
19	46.99	81.92	257.4	350.3	1.000E+06	350.4	353.0	1.000E+06	352.9	1.6611E 06	1.5374E 06	
20	62.06	90.05	180.4	353.1	1.000E+06	353.2	325.8	1.000E+06	325.6	1.5407E 06	2.1985E 06	
	41.73	81.96										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20=SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 145

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	VBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDOW
1	41.70 55.10	83.50 83.11	163.1									
2	46.43	83.40	217.6	266.7	1.000E+06	266.7	282.2	1.000E+06	282.1	1.4172E 06	9.5489E 05	
3	46.40	83.41	214.0	288.6	1.000E+06	288.6	287.9	1.000E+06	287.9	1.0506E 06	1.0842E 06	
4	46.27	83.43	208.8	280.1	1.000E+06	280.1	279.2	1.000E+06	279.1	9.8994E 05	1.0166E 06	
5	46.17	83.45	204.5	272.0	1.000E+06	272.1	271.3	1.000E+06	271.2	9.1447E 05	9.5355E 05	
6	46.12	83.35	201.3	265.7	1.000E+06	265.7	265.1	1.000E+06	265.1	8.7450E 05	9.0456E 05	
7	46.07	83.35	198.9	260.6	1.000E+06	260.7	260.3	1.000E+06	260.2	8.4199E 05	8.6292E 05	
8	46.05	83.36	197.7	257.5	1.000E+06	257.4	257.4	1.000E+06	257.3	8.2504E 05	8.3547E 05	
9	46.05	83.36	197.4	256.3	1.000E+06	256.4	256.3	1.000E+06	256.2	8.2152E 05	8.2414E 05	
10	46.05	83.36	198.1	256.4	1.000E+06	256.4	256.5	1.000E+06	256.5	8.2563E 05	8.2002E 05	
				258.4	1.000E+06	258.4	258.8	1.000E+06	258.8	8.4690E 05	8.2836E 05	
11	46.06	83.35	200.2									
12	46.08	83.35	202.8	262.9	1.000E+06	263.0	263.5	1.000E+06	263.4	8.8690E 05	8.6249E 05	
13	46.12	83.35	206.1	267.4	1.000E+06	267.5	268.1	1.000E+06	268.1	9.1965E 05	8.8909E 05	
14	46.18	83.45	209.7	273.9	1.000E+06	274.0	274.7	1.000E+06	274.6	9.7293E 05	9.3959E 05	
15	46.25	83.44	213.5	279.5	1.000E+06	279.6	280.3	1.000E+06	280.3	1.0107E 06	9.7593E 05	
				287.3	1.000E+06	287.4	288.8	1.000E+06	288.7	1.0789E 06	1.0115E 06	
16	46.34	83.42	220.8									
17	46.52	83.40	232.2	303.1	1.000E+06	303.2	305.5	1.000E+06	305.5	1.2262E 06	1.1162E 06	
18	46.90	83.51	248.0	324.2	1.000E+06	324.3	327.4	1.000E+06	327.3	1.4019E 06	1.2518E 06	
19	47.04	83.45	261.4	349.3	1.000E+06	349.4	352.1	1.000E+06	352.0	1.5985E 06	1.4704E 06	
20	61.18	90.67	181.6	351.4	1.000E+06	351.5	323.8	1.000E+06	323.7	1.4613E 06	2.1264E 06	
	41.70	83.50										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 149

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR-FT2	Q / A BTU/HR-FT2	WINDOW
1	41.67 55.12	85.04 84.62	164.3	264.3	1.000E-06	264.4	280.4	1.000E-06	280.3	1.3751E 06	8.9607E 05	
2	46.47	84.92	220.2	287.6	1.000E-06	287.7	287.0	1.000E-06	286.9	1.0050E 06	1.0390E 06	
3	46.44	84.94	216.6	279.3	1.000E-06	279.4	278.4	1.000E-06	278.3	9.2671E 05	9.7543E 05	
4	46.30	84.95	211.3	271.3	1.000E-06	271.4	270.5	1.000E-06	270.5	8.7399E 05	9.1463E 05	
5	46.21	84.98	206.9	265.0	1.000E-06	265.1	264.4	1.000E-06	264.4	8.3594E 05	8.6751E 05	
6	46.15	84.87	203.5	260.0	1.000E-06	260.0	259.6	1.000E-06	259.5	8.0499E 05	8.2747E 05	
7	46.11	84.88	201.1	256.8	1.000E-06	256.9	256.6	1.000E-06	256.6	7.8918E 05	8.0067E 05	
8	46.08	84.88	199.9	255.6	1.000E-06	255.6	255.6	1.000E-06	255.5	7.8645E 05	7.8921E 05	
9	46.08	84.89	199.6	255.6	1.000E-06	255.7	255.8	1.000E-06	255.7	7.9086E 05	7.8483E 05	
10	46.08	84.88	200.2	257.7	1.000E-06	257.7	258.2	1.000E-06	258.1	8.1222E 05	7.9188E 05	
11	46.09	84.88	202.4	262.2	1.000E-06	262.3	262.8	1.000E-06	262.8	8.5631E 05	8.2469E 05	
12	46.11	84.88	205.1	266.8	1.000E-06	266.8	267.5	1.000E-06	267.4	8.8194E 05	8.4988E 05	
13	46.16	84.87	208.5	273.2	1.000E-06	273.2	273.9	1.000E-06	273.9	9.3276E 05	8.9838E 05	
14	46.22	84.97	212.2	278.8	1.000E-06	278.8	279.6	1.000E-06	279.5	9.6943E 05	9.3272E 05	
15	46.28	84.96	216.2	286.6	1.000E-06	286.7	288.2	1.000E-06	288.1	1.0367E 06	9.6489E 05	
16	46.39	84.94	223.7	302.4	1.000E-06	302.5	304.9	1.000E-06	304.8	1.1791E 06	1.0637E 06	
17	46.57	84.92	235.5	323.4	1.000E-06	323.5	326.7	1.000E-06	326.6	1.3484E 06	1.1925E 06	
18	46.95	85.03	251.7	348.3	1.000E-06	348.4	351.2	1.000E-06	351.1	1.5363E 06	1.4020E 06	
19	47.10	84.98	265.1	349.7	1.000E-06	349.8	321.7	1.000E-06	321.6	1.3803E 06	2.0548E 06	
20	60.33 41.67	91.27 85.04	182.7									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 153

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR-FT2	Q / A BTU/HR-FT2	WINDOW
1	41.64 55.13	86.57 86.13	165.3	262.0	1.000E-06	262.1	278.6	1.000E-06	278.6	1.3330E 06	8.3733E 05	
2	46.51	84.45	227.7	286.7	1.000E-06	286.8	286.8	1.000E-06	286.8	9.5934E 05	9.9395E 05	
3	46.49	86.46	219.1	278.5	1.000E-06	278.6	277.5	1.000E-06	277.5	8.8325E 05	9.3440E 05	
4	46.34	86.48	213.7	270.6	1.000E-06	270.6	269.8	1.000E-06	269.7	8.3364E 05	8.7548E 05	
5	46.24	86.50	209.2	264.3	1.000E-06	264.4	263.7	1.000E-06	263.6	7.9736E 05	8.3040E 05	
6	46.18	86.40	205.7	259.3	1.000E-06	259.3	258.8	1.000E-06	258.8	7.6825E 05	7.9175E 05	
7	46.14	86.41	203.2	256.1	1.000E-06	256.2	255.9	1.000E-06	255.9	7.5358E 05	7.6566E 05	
8	46.11	86.41	202.0	254.9	1.000E-06	254.9	254.8	1.000E-06	254.8	7.5134E 05	7.5436E 05	
9	46.11	86.41	201.6	254.9	1.000E-06	255.0	255.1	1.000E-06	255.0	7.5609E 05	7.4958E 05	
10	46.11	86.41	202.3	257.0	1.000E-06	257.0	257.5	1.000E-06	257.4	7.7703E 05	7.5980E 05	
11	46.12	86.41	204.5	261.5	1.000E-06	261.5	262.1	1.000E-06	262.0	8.1371E 05	7.8692E 05	
12	46.14	86.41	207.3	266.8	1.000E-06	266.8	266.8	1.000E-06	266.7	8.4408E 05	8.1078E 05	
13	46.19	86.40	210.5	272.4	1.000E-06	272.4	273.2	1.000E-06	273.1	8.9276E 05	8.5712E 05	
14	46.25	86.50	214.6	278.0	1.000E-06	278.0	278.8	1.000E-06	278.8	9.2819E 05	8.8951E 05	
15	46.32	86.48	218.7	285.8	1.000E-06	285.9	287.5	1.000E-06	287.4	9.9432E 05	9.1832E 05	
16	46.43	86.47	226.5	301.6	1.000E-06	301.7	304.2	1.000E-06	304.1	1.1319E 06	1.0113E 06	
17	46.61	86.45	238.6	322.5	1.000E-06	322.6	325.9	1.000E-06	325.9	1.2948E 06	1.1333E 06	
18	47.00	86.56	255.2	349.9	1.000E-06	350.0	352.9	1.000E-06	352.8	1.5179E 06	1.3782E 06	
19	47.15	86.50	268.7	348.0	1.000E-06	348.0	319.5	1.000E-06	319.4	1.2991E 06	1.9836E 06	
20	59.51 41.64	91.83 86.57	183.4									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 157

DX = 0.02086 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	41.59 55.15	88.10 87.64	166.4	258.7	1.000E-06	258.8	275.8	1.000E-06	275.8	1.2772E 06	7.6505E 05	
2	46.55	87.96	225.0	284.9	1.000E-06	284.9	284.2	1.000E-06	284.2	9.0174E 05	9.3629E 05	
3	46.53	87.98	221.5	276.9	1.000E-06	277.0	275.9	1.000E-06	275.8	8.2824E 05	8.8216E 05	
4	46.38	88.00	215.9	269.0	1.000E-06	269.1	268.2	1.000E-06	268.1	7.8231E 05	8.2595E 05	
5	46.27	88.02	211.3	262.8	1.000E-06	262.9	262.1	1.000E-06	262.1	7.4874E 05	7.8292E 05	
6	46.21	87.92	207.8	257.8	1.000E-06	257.9	257.4	1.000E-06	257.3	7.2168E 05	7.4623E 05	
7	46.17	87.93	205.2	254.7	1.000E-06	254.7	254.5	1.000E-06	254.4	7.0848E 05	7.2110E 05	
8	46.14	87.93	203.9	253.4	1.000E-06	253.5	253.4	1.000E-06	253.4	7.0685E 05	7.1000E 05	
9	46.14	87.93	203.6	253.5	1.000E-06	253.5	253.7	1.000E-06	253.6	7.1181E 05	7.0499E 05	
10	46.14	87.93	204.3	255.5	1.000E-06	255.6	256.1	1.000E-06	256.0	7.4223E 05	7.1012E 05	
11	46.15	87.93	206.6	260.0	1.000E-06	260.0	260.6	1.000E-06	260.6	7.6709E 05	7.3910E 05	
12	46.17	87.93	209.4	264.5	1.000E-06	264.5	265.2	1.000E-06	265.2	7.9573E 05	7.6151E 05	
13	46.22	87.92	213.0	270.7	1.000E-06	270.8	271.5	1.000E-06	271.5	8.4199E 05	8.0457E 05	
14	46.28	88.01	216.9	276.3	1.000E-06	276.4	277.2	1.000E-06	277.2	8.7568E 05	8.3471E 05	
15	46.36	88.00	221.2	284.2	1.000E-06	284.3	285.9	1.000E-06	285.9	9.4901E 05	8.9992E 05	
16	46.47	87.99	229.1	299.8	1.000E-06	299.9	302.5	1.000E-06	302.5	1.0711E 06	9.4561E 05	
17	46.66	87.96	241.5	320.5	1.000E-06	320.6	324.1	1.000E-06	324.1	1.2264E 06	1.0583E 06	
18	47.05	88.08	258.6	345.0	1.000E-06	345.1	348.1	1.000E-06	348.0	1.3964E 06	1.2509E 06	
19	47.20	88.02	272.1	345.0	1.000E-06	345.1	316.4	1.000E-06	316.3	1.2006E 06	1.8883E 06	
20	58.30 41.59	92.05 88.10	184.8									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 161

DX = 0.02086 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	41.56 55.16	89.63 89.14	167.4	259.3	1.000E-06	255.4	273.0	1.000E-06	272.9	1.2202E 06	6.9241E 05	
2	46.58	89.48	227.1	282.9	1.000E-06	283.0	282.3	1.000E-06	282.7	8.4168E 05	8.7745E 05	
3	46.56	89.49	223.8	275.2	1.000E-06	275.3	274.1	1.000E-06	274.0	7.7255E 05	8.2919E 05	
4	46.42	89.51	218.1	267.4	1.000E-06	267.4	266.4	1.000E-06	266.4	7.3029E 05	7.7592E 05	
5	46.31	89.53	213.3	261.2	1.000E-06	261.2	260.5	1.000E-06	260.4	6.9966E 05	7.3477E 05	
6	46.24	89.43	209.7	256.3	1.000E-06	256.3	255.8	1.000E-06	255.8	6.7458E 05	7.0012E 05	
7	46.19	89.44	207.1	253.2	1.000E-06	253.2	252.9	1.000E-06	252.9	6.6282E 05	6.7596E 05	
8	46.17	89.45	205.7	251.9	1.000E-06	251.9	251.9	1.000E-06	251.8	6.6180E 05	6.6507E 05	
9	46.16	89.45	203.4	252.0	1.000E-06	252.0	252.2	1.000E-06	252.1	6.6697E 05	6.5986E 05	
10	46.17	89.45	206.1	254.0	1.000E-06	254.0	254.5	1.000E-06	254.5	6.8683E 05	6.6389E 05	
11	46.18	89.45	208.5	258.3	1.000E-06	258.4	259.0	1.000E-06	258.9	7.1962E 05	6.9088E 05	
12	46.20	89.44	211.4	262.8	1.000E-06	262.8	263.6	1.000E-06	263.5	7.4695E 05	7.1137E 05	
13	46.24	89.43	215.1	268.9	1.000E-06	269.0	269.8	1.000E-06	269.8	7.9056E 05	7.5147E 05	
14	46.32	89.53	219.1	274.6	1.000E-06	274.6	275.5	1.000E-06	275.5	8.2261E 05	7.7921E 05	
15	46.39	89.52	223.4	282.5	1.000E-06	282.5	284.3	1.000E-06	284.2	8.8430E 05	8.0119E 05	
16	46.51	89.50	231.6	297.9	1.000E-06	298.0	300.7	1.000E-06	300.6	1.0093E 06	8.7932E 05	
17	46.70	89.48	244.3	318.4	1.000E-06	318.5	322.2	1.000E-06	322.1	1.1977E 06	9.8201E 05	
18	47.10	89.60	261.7	342.4	1.000E-06	342.5	345.6	1.000E-06	345.5	1.3113E 06	1.1631E 06	
19	47.25	89.54	275.2	341.5	1.000E-06	341.5	312.4	1.000E-06	312.3	1.0966E 06	1.7962E 06	
20	57.52 41.56	92.56 89.63	185.8									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 165

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG, F,	TSURFACE DEG, F,	FILMTH INCHES	TINTFACE DEG, F,	TINTFACE DEG, F,	FILMTH INCHES	TSURFACE DEG, F,	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
	41.52 55.18	91.15 90.65	168.4									
1				252.3	1.000E-06	252.4	270.5	1.000E-06	270.4	1.1492E 06	6.2725E 05	
2	46.62	90.99	229.1	281.3	1.000E-06	281.3	280.6	1.000E-06	280.6	7.9187E 05	8.2498E 05	
3	46.60	91.00	225.9	273.8	1.000E-06	273.8	272.6	1.000E-06	272.6	7.2275E 05	7.8180E 05	
4	46.45	91.03	220.1	266.0	1.000E-06	266.0	265.0	1.000E-06	265.0	6.8358E 05	7.3114E 05	
5	46.34	91.05	215.2	259.8	1.000E-06	259.9	259.1	1.000E-06	259.1	6.5545E 05	6.9191E 05	
6	46.27	90.95	211.5	255.0	1.000E-06	255.0	254.5	1.000E-06	254.4	6.3254E 05	6.5866E 05	
7	46.22	90.96	208.8	251.9	1.000E-06	251.9	251.7	1.000E-06	251.6	6.2196E 05	6.3560E 05	
8	46.19	90.97	207.5	250.6	1.000E-06	250.7	250.6	1.000E-06	250.6	6.2140E 05	6.2484E 05	
9	46.19	90.97	207.1	250.7	1.000E-06	250.7	250.9	1.000E-06	250.9	6.2685E 05	6.1946E 05	
10	46.19	90.97	207.9	252.7	1.000E-06	252.8	253.2	1.000E-06	253.2	6.4623E 05	6.2256E 05	
11	46.21	90.96	210.2	257.0	1.000E-06	257.0	257.6	1.000E-06	257.6	6.7720E 05	6.4772E 05	
12	46.22	90.96	213.2	261.4	1.000E-06	261.5	262.2	1.000E-06	262.2	7.0340E 05	6.6644E 05	
13	46.27	90.95	217.0	267.5	1.000E-06	267.5	268.4	1.000E-06	268.3	7.4464E 05	7.0375E 05	
14	46.35	91.05	221.1	273.1	1.000E-06	273.2	274.1	1.000E-06	274.1	7.7497E 05	7.2954E 05	
15	46.43	91.03	225.6	281.1	1.000E-06	281.1	282.9	1.000E-06	282.9	8.3459E 05	7.4851E 05	
16	46.54	91.01	233.9	296.3	1.000E-06	296.4	299.2	1.000E-06	299.1	9.5422E 05	8.1976E 05	
17	46.74	90.99	246.9	316.7	1.000E-06	316.8	320.6	1.000E-06	320.6	1.0964E 06	9.1334E 05	
18	47.14	91.11	264.6	340.4	1.000E-06	340.5	343.6	1.000E-06	343.5	1.2367E 06	1.0874E 06	
19	47.29	91.05	278.1	338.7	1.000E-06	338.7	309.4	1.000E-06	309.3	1.0070E 06	1.1701E 06	
20	56.39	92.76	186.8									
	41.52	91.15										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 169

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG, F,	TSURFACE DEG, F,	FILMTH INCHES	TINTFACE DEG, F,	TINTFACE DEG, F,	FILMTH INCHES	TSURFACE DEG, F,	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
	41.49 55.19	92.67 92.16	169.3									
1				248.4	1.000E-06	248.5	267.0	1.000E-06	266.9	1.1050E 06	5.4914E 05	
2	46.65	92.50	230.9	278.7	1.000E-06	278.8	278.1	1.000E-06	278.0	7.2838E 05	7.6033E 05	
3	46.63	92.51	227.9	271.6	1.000E-06	271.6	270.3	1.000E-06	270.3	6.6215E 05	7.2317E 05	
4	46.48	92.54	221.9	263.8	1.000E-06	263.9	262.8	1.000E-06	262.8	6.2644E 05	6.7618E 05	
5	46.37	92.56	217.0	257.7	1.000E-06	257.8	257.0	1.000E-06	256.9	6.0134E 05	6.3923E 05	
6	46.30	92.46	213.2	252.9	1.000E-06	253.0	252.4	1.000E-06	252.4	5.8100E 05	6.0785E 05	
7	46.24	92.47	210.5	249.9	1.000E-06	249.9	249.7	1.000E-06	249.6	5.7193E 05	5.8595E 05	
8	46.22	92.48	209.1	248.6	1.000E-06	248.7	248.0	1.000E-06	248.6	5.7201E 05	5.7551E 05	
9	46.21	92.40	208.7	248.7	1.000E-06	248.8	248.9	1.000E-06	248.9	5.7760E 05	5.6992E 05	
10	46.22	92.46	209.5	250.7	1.000E-06	250.7	251.2	1.000E-06	251.2	5.9616E 05	5.7205E 05	
11	46.23	92.47	211.9	254.9	1.000E-06	254.9	255.5	1.000E-06	255.5	6.2527E 05	5.9466E 05	
12	46.25	92.47	215.0	259.3	1.000E-06	259.3	260.1	1.000E-06	260.1	6.4980E 05	6.1141E 05	
13	46.30	92.46	218.8	265.2	1.000E-06	265.3	266.2	1.000E-06	266.1	6.8819E 05	6.4539E 05	
14	46.38	92.50	223.0	270.9	1.000E-06	270.9	271.9	1.000E-06	271.9	7.1627E 05	6.6902E 05	
15	46.46	92.54	227.6	278.8	1.000E-06	278.8	280.7	1.000E-06	280.6	7.7336E 05	6.8431E 05	
16	46.58	92.52	236.1	293.8	1.000E-06	293.8	296.7	1.000E-06	296.7	8.8625E 05	7.4716E 05	
17	46.77	92.49	249.3	314.0	1.000E-06	314.1	318.0	1.000E-06	318.0	1.0204E 06	8.3010E 05	
18	47.19	92.63	267.3	337.2	1.000E-06	337.3	340.4	1.000E-06	340.3	1.1450E 06	9.9498E 05	
19	47.33	92.56	280.7	334.2	1.000E-06	334.2	304.4	1.000E-06	304.3	8.9241E 05	1.6094E 06	
20	55.66	93.22	187.7									
	41.49	92.67										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20*SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 173

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR-FT2	Q / A BTU/HR-FT2	WINDOW
1	41.46 55.20	94.19 93.66	170.1									*
2	46.67	94.00	232.5	244.3	1.000E-06	244.4	263.4	1.000E-06	263.3	1.0393E 06	4.7075E 05	*
3	46.66	94.02	229.7	276.0	1.000E-06	276.0	275.4	1.000E-06	275.3	6.6427E 05	6.9469E 05	*
4	46.51	94.05	223.6	269.2	1.000E-06	269.2	267.9	1.000E-06	267.9	6.0090E 05	6.6374E 05	*
5	46.40	94.07	218.6	261.5	1.000E-06	261.6	260.5	1.000E-06	260.5	5.6871E 05	6.2044E 05	*
				255.5	1.000E-06	255.5	254.7	1.000E-06	254.7	5.4660E 05	5.8589E 05	*
6	46.33	93.97	214.7	250.8	1.000E-06	250.8	250.2	1.000E-06	250.2	5.2874E 05	5.5654E 05	*
7	46.27	93.98	212.0	247.8	1.000E-06	247.8	247.5	1.000E-06	247.5	5.2135E 05	5.3567E 05	*
8	46.24	93.99	210.5	246.5	1.000E-06	246.6	246.5	1.000E-06	246.5	5.2201E 05	5.2555E 05	*
9	46.23	93.99	210.2	246.6	1.000E-06	246.6	246.8	1.000E-06	246.8	5.2768E 05	5.1989E 05	*
10	46.24	93.99	211.0	248.5	1.000E-06	248.6	249.1	1.000E-06	249.1	5.4562E 05	5.2082E 05	*
11	46.25	93.98	213.4	252.6	1.000E-06	252.6	253.3	1.000E-06	253.3	5.7264E 05	5.4097E 05	*
12	46.27	93.98	216.5	257.0	1.000E-06	257.0	257.8	1.000E-06	257.8	5.9658E 05	5.5580E 05	*
13	46.33	93.97	220.4	262.9	1.000E-06	262.9	263.8	1.000E-06	263.8	6.3095E 05	5.8649E 05	*
14	46.41	94.07	224.7	268.5	1.000E-06	268.5	269.5	1.000E-06	269.5	6.5684E 05	6.0782E 05	*
15	46.49	94.05	229.4	276.3	1.000E-06	276.4	278.3	1.000E-06	278.2	7.1120E 05	6.1944E 05	*
16	46.61	94.03	238.1	291.1	1.000E-06	291.1	294.1	1.000E-06	294.1	8.1718E 05	6.7391E 05	*
17	46.80	94.00	251.6	311.0	1.000E-06	311.1	315.2	1.000E-06	315.2	9.4326E 05	7.4603E 05	*
18	47.23	94.14	269.8	333.8	1.000E-06	333.8	337.0	1.000E-06	336.9	1.0517E 06	9.0178E 05	*
19	47.37	94.07	283.0	329.4	1.000E-06	329.5	299.0	1.000E-06	298.9	7.7653E 05	1.5073E 06	*
20	54.95	93.66	188.5									*
	41.46	94.19										*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20*SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 177

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR-FT2	Q / A BTU/HR-FT2	WINDOW
1	41.20 54.92	95.59 94.94	174.9									*
2	46.44	95.35	234.0	240.4	1.000E-06	240.5	259.8	1.000E-06	259.8	9.7219E 05	3.9370E 05	*
3	46.44	95.36	231.3	273.3	1.000E-06	273.3	272.7	1.000E-06	272.7	6.0032E 05	6.2897E 05	*
4	46.29	95.39	225.2	266.8	1.000E-06	266.9	265.5	1.000E-06	265.5	5.3989E 05	6.0406E 05	*
5	46.17	95.42	220.1	259.3	1.000E-06	259.3	258.2	1.000E-06	258.2	5.1119E 05	5.6451E 05	*
				253.3	1.000E-06	253.3	252.5	1.000E-06	252.4	4.9201E 05	5.3244E 05	*
6	46.10	95.32	216.2	248.6	1.000E-06	248.7	248.1	1.000E-06	248.0	4.7657E 05	5.0517E 05	*
7	46.04	95.33	213.3	245.7	1.000E-06	245.7	245.4	1.000E-06	245.4	4.7070E 05	4.8545E 05	*
8	46.01	95.34	211.9	244.4	1.000E-06	244.5	244.4	1.000E-06	244.4	4.7196E 05	4.7560E 05	*
9	46.01	95.34	211.5	244.5	1.000E-06	244.5	244.7	1.000E-06	244.7	4.7782E 05	4.6977E 05	*
10	46.01	95.34	212.3	246.4	1.000E-06	246.5	247.0	1.000E-06	247.0	4.9507E 05	4.6964E 05	*
11	46.02	95.33	214.8	250.4	1.000E-06	250.4	251.1	1.000E-06	251.1	5.1996E 05	4.8740E 05	*
12	46.05	95.33	218.0	254.7	1.000E-06	254.8	255.6	1.000E-06	255.6	5.4128E 05	5.0021E 05	*
13	46.10	95.32	221.9	260.5	1.000E-06	260.6	261.5	1.000E-06	261.5	5.7346E 05	5.2781E 05	*
14	46.18	95.41	226.3	266.1	1.000E-06	266.2	267.2	1.000E-06	267.2	5.9718E 05	5.4675E 05	*
15	46.26	95.40	231.1	273.9	1.000E-06	274.0	275.9	1.000E-06	275.9	6.4897E 05	5.5472E 05	*
16	46.38	95.37	239.9	280.4	1.000E-06	288.5	291.5	1.000E-06	291.5	7.4779E 05	6.0105E 05	*
17	46.58	95.34	253.6	308.2	1.000E-06	308.2	312.4	1.000E-06	312.4	8.6540E 05	6.6271E 05	*
18	47.01	95.48	272.0	330.4	1.000E-06	330.4	333.5	1.000E-06	333.5	9.5810E 05	8.0907E 05	*
19	47.14	95.41	285.1	324.1	1.000E-06	324.1	292.4	1.000E-06	292.3	6.5204E 05	1.4138E 06	*
20	55.38	94.91	189.3									*
	41.20	95.59										*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SHALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 180

DX = 0,02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBLK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	41,17	96,71	171,5	237,3	1,000E-06	237,3	256,9	1,000E-06	256,9	9,2214E 05	3,3568E 05	*
2	46,46	96,46	234,9	271,0	1,000E-06	271,1	270,5	1,000E-06	270,5	5,5241E 05	5,7967E 05	*
3	46,46	96,47	232,4	264,9	1,000E-06	264,9	263,5	1,000E-06	263,5	4,9412E 05	5,5936E 05	*
4	46,30	96,51	226,3	257,4	1,000E-06	257,4	256,3	1,000E-06	256,3	4,6805E 05	5,2249E 05	*
5	46,18	96,53	221,1	251,5	1,000E-06	251,5	250,6	1,000E-06	250,6	4,5097E 05	4,9242E 05	*
6	46,11	96,44	217,1	246,9	1,000E-06	246,9	246,3	1,000E-06	246,3	4,3743E 05	4,6666E 05	*
7	46,06	96,45	214,3	243,9	1,000E-06	244,0	243,6	1,000E-06	243,6	4,3268E 05	4,4777E 05	*
8	46,03	96,46	212,8	242,7	1,000E-06	242,7	242,6	1,000E-06	242,6	4,3447E 05	4,3817E 05	*
9	46,02	96,46	212,4	242,8	1,000E-06	242,8	243,0	1,000E-06	242,9	4,4042E 05	4,3218E 05	*
10	46,03	96,46	213,2	244,7	1,000E-06	244,7	245,2	1,000E-06	245,2	4,5713E 05	4,3218E 05	*
11	46,04	96,45	215,8	248,6	1,000E-06	248,6	249,3	1,000E-06	249,3	4,8046E 05	4,4718E 05	*
12	46,06	96,45	219,0	252,9	1,000E-06	252,9	253,8	1,000E-06	253,8	5,0059E 05	4,5853E 05	*
13	46,12	96,44	223,0	258,6	1,000E-06	258,6	259,6	1,000E-06	259,6	5,3039E 05	4,8376E 05	*
14	46,20	96,53	227,4	264,1	1,000E-06	264,2	265,2	1,000E-06	265,2	5,5252E 05	5,0095E 05	*
15	46,28	96,51	232,2	271,9	1,000E-06	271,9	273,9	1,000E-06	273,9	6,0227E 05	5,0619E 05	*
16	46,40	96,49	241,1	286,2	1,000E-06	286,2	289,4	1,000E-06	289,3	6,9599E 05	5,4609E 05	*
17	46,60	96,45	255,0	305,7	1,000E-06	305,8	310,1	1,000E-06	310,0	8,0703E 05	6,0019E 05	*
18	47,03	96,60	273,6	327,5	1,000E-06	327,6	330,7	1,000E-06	330,6	8,8778E 05	7,3951E 05	*
19	47,17	96,53	286,5	319,8	1,000E-06	319,9	287,2	1,000E-06	287,1	5,5912E 05	1,3433E 06	*
20	55,90	96,00	189,8									*
	41,17	96,71										*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SHALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 181

DX = 0,02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBLK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	40,94	96,96	171,7	236,4	1,000E-06	236,0	250,1	1,000E-06	256,0	9,0418E 05	3,1774E 05	*
2	46,22	96,68	235,2	270,4	1,000E-06	270,5	269,9	1,000E-06	269,9	5,5648E 05	5,6313E 05	*
3	46,22	96,70	232,8	264,3	1,000E-06	264,4	263,0	1,000E-06	263,0	4,7896E 05	5,4431E 05	*
4	46,07	96,73	226,6	256,9	1,000E-06	256,9	255,8	1,000E-06	255,8	4,5381E 05	5,0841E 05	*
5	45,95	96,76	221,4	251,0	1,000E-06	251,0	250,1	1,000E-06	250,1	4,3737E 05	4,7900E 05	*
6	45,88	96,66	217,4	246,4	1,000E-06	246,4	245,8	1,000E-06	245,8	4,2443E 05	4,5376E 05	*
7	45,82	96,66	214,6	243,5	1,000E-06	243,5	243,2	1,000E-06	243,1	4,2007E 05	4,3522E 05	*
8	45,79	96,68	213,1	242,2	1,000E-06	242,2	242,2	1,000E-06	242,1	4,2196E 05	4,2569E 05	*
9	45,79	96,68	212,7	242,3	1,000E-06	242,3	242,5	1,000E-06	242,5	4,2798E 05	4,1971E 05	*
10	45,79	96,68	213,5	244,2	1,000E-06	244,2	244,8	1,000E-06	244,7	4,4448E 05	4,1846E 05	*
11	45,80	96,68	216,1	248,1	1,000E-06	248,1	248,8	1,000E-06	248,8	4,6723E 05	4,3385E 05	*
12	45,83	96,67	219,3	252,4	1,000E-06	252,4	253,3	1,000E-06	253,3	4,8693E 05	4,4479E 05	*
13	45,88	96,66	223,3	258,1	1,000E-06	258,1	259,1	1,000E-06	259,0	5,1593E 05	4,6916E 05	*
14	45,96	96,76	227,7	263,6	1,000E-06	263,6	264,7	1,000E-06	264,7	5,3752E 05	4,8576E 05	*
15	46,04	96,74	232,6	271,3	1,000E-06	271,4	273,4	1,000E-06	273,4	5,8651E 05	4,9019E 05	*
16	46,16	96,71	241,5	285,6	1,000E-06	285,6	288,8	1,000E-06	288,7	6,7846E 05	5,2806E 05	*
17	46,36	96,67	255,5	305,1	1,000E-06	305,1	309,4	1,000E-06	309,4	7,8719E 05	5,7973E 05	*
18	46,79	96,82	274,1	326,7	1,000E-06	326,8	329,9	1,000E-06	329,8	8,6409E 05	7,1665E 05	*
19	46,93	96,75	286,9	318,6	1,000E-06	318,6	285,7	1,000E-06	285,6	5,2889E 05	1,3191E 06	*
20	55,92	96,25	190,0									*
	40,94	96,96										*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20=SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 185

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	39.56 52.81	97.29 95.96	172.2	234.4	1.000E+06	234.4	253.7	1.000E+06	253.7	8.4635E 05	2.6720E 05	
2	45.75	97.48	236.1	268.3	1.000E+06	268.4	267.9	1.000E+06	267.8	4.8865E 05	5.1359E 05	
3	45.76	97.49	233.8	262.5	1.000E+06	262.5	261.2	1.000E+06	261.1	4.3338E 05	4.9923E 05	
4	45.60	97.53	227.6	255.2	1.000E+06	255.2	254.1	1.000E+06	254.0	4.1084E 05	4.6610E 05	
5	45.49	97.56	222.3	249.3	1.000E+06	249.3	248.4	1.000E+06	248.4	3.9647E 05	4.3874E 05	
6	45.42	97.47	216.3	244.8	1.000E+06	244.8	244.2	1.000E+06	244.1	3.8535E 05	4.1506E 05	
7	45.36	97.48	215.4	241.9	1.000E+06	241.9	241.6	1.000E+06	241.5	3.8208E 05	3.9744E 05	
8	45.33	97.49	213.9	240.6	1.000E+06	240.6	240.6	1.000E+06	240.5	3.8437E 05	3.8814E 05	
9	45.32	97.49	213.6	240.7	1.000E+06	240.7	240.9	1.000E+06	240.9	3.9048E 05	3.8208E 05	
10	45.33	97.49	214.4	242.6	1.000E+06	242.6	243.1	1.000E+06	243.1	4.0640E 05	3.8008E 05	
11	45.34	97.48	216.9	246.4	1.000E+06	246.4	247.1	1.000E+06	247.1	4.2755E 05	3.9371E 05	
12	45.36	97.48	220.2	250.7	1.000E+06	250.7	251.6	1.000E+06	251.6	4.4594E 05	4.0316E 05	
13	45.42	97.47	224.2	256.3	1.000E+06	256.3	257.3	1.000E+06	257.3	4.7257E 05	4.2523E 05	
14	45.50	97.56	228.7	261.8	1.000E+06	261.8	262.9	1.000E+06	262.9	4.9255E 05	4.4007E 05	
15	45.58	97.54	233.6	269.5	1.000E+06	269.5	271.0	1.000E+06	271.5	5.3937E 05	4.4200E 05	
16	45.70	97.51	242.6	283.6	1.000E+06	283.6	286.8	1.000E+06	286.7	6.2601E 05	4.7361E 05	
17	45.90	97.47	256.7	302.0	1.000E+06	302.9	307.3	1.000E+06	307.2	7.2775E 05	5.1804E 05	
18	46.33	97.62	275.4	324.1	1.000E+06	324.1	327.2	1.000E+06	327.1	7.9278E 05	6.4788E 05	
19	46.46	97.54	288.0	313.1	1.000E+06	313.2	277.7	1.000E+06	277.6	4.1622E 05	1.2680E 06	
20	59.82 39.56	100.61 97.29	190.5									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20=SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 189

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	39.53 52.83	98.60 97.34	172.9	229.6	1.000E+06	229.6	249.3	1.000E+06	249.3	7.7407E 05	1.8557E 05	
2	45.77	98.92	237.0	264.7	1.000E+06	264.8	264.3	1.000E+06	264.3	4.2049E 05	4.4317E 05	
3	45.78	98.93	234.9	259.3	1.000E+06	259.3	257.9	1.000E+06	257.9	3.6830E 05	4.3537E 05	
4	45.62	98.97	228.7	252.2	1.000E+06	252.2	251.0	1.000E+06	251.0	3.4958E 05	4.0614E 05	
5	45.50	99.01	223.4	246.4	1.000E+06	246.4	245.5	1.000E+06	245.5	3.3818E 05	3.8158E 05	
6	45.43	98.91	219.3	241.9	1.000E+06	241.9	241.3	1.000E+06	241.3	3.2963E 05	3.6012E 05	
7	45.38	98.93	216.4	239.1	1.000E+06	239.1	238.7	1.000E+06	238.7	3.2797E 05	3.4375E 05	
8	45.34	98.93	214.9	237.8	1.000E+06	237.9	237.8	1.000E+06	237.8	3.3094E 05	3.3479E 05	
9	45.34	98.93	214.5	237.9	1.000E+06	237.9	238.1	1.000E+06	238.1	3.3721E 05	3.2857E 05	
10	45.35	98.93	215.4	239.8	1.000E+06	239.8	240.3	1.000E+06	240.3	3.5234E 05	3.2543E 05	
11	45.36	98.93	217.9	243.5	1.000E+06	243.5	244.2	1.000E+06	244.2	3.7125E 05	3.3647E 05	
12	45.38	98.92	221.2	247.7	1.000E+06	247.7	248.6	1.000E+06	248.6	3.8773E 05	3.4397E 05	
13	45.44	98.91	225.3	253.1	1.000E+06	253.2	254.2	1.000E+06	254.2	4.1110E 05	3.6263E 05	
14	45.52	99.00	229.8	258.6	1.000E+06	258.6	259.7	1.000E+06	259.7	4.2880E 05	3.7490E 05	
15	45.60	98.98	234.8	266.2	1.000E+06	266.2	268.3	1.000E+06	268.3	4.7265E 05	3.7301E 05	
16	45.72	98.95	244.0	280.0	1.000E+06	280.0	283.3	1.000E+06	283.2	5.5195E 05	3.9560E 05	
17	45.92	98.90	258.2	298.9	1.000E+06	298.9	303.4	1.000E+06	303.4	6.4387E 05	4.2968E 05	
18	46.36	99.06	277.1	319.4	1.000E+06	319.5	322.5	1.000E+06	322.4	6.9199E 05	5.4950E 05	
19	46.48	98.98	289.3	307.1	1.000E+06	307.2	271.3	1.000E+06	271.3	2.9578E 05	1.1556E 06	
20	59.10 39.53	100.48 98.69	191.0									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20=SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 193

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
	39.50 52.83	100.08 98.72	173.5									
1				224.9	1.000E-06	225.0	244.8	1.000E-06	244.8	7.0353E 05	1.0740E 05	
2	45.78	100.35	237.8	261.1	1.000E-06	261.2	260.7	1.000E-06	260.7	3.5483E 05	3.7499E 05	
3	45.79	100.37	235.9	256.1	1.000E-06	256.1	254.7	1.000E-06	254.7	3.0552E 05	3.7362E 05	
4	45.64	100.41	229.7	249.1	1.000E-06	249.2	248.0	1.000E-06	247.9	2.9047E 05	3.4818E 05	
5	45.52	100.45	224.4	243.4	1.000E-06	243.5	242.5	1.000E-06	242.5	2.8193E 05	3.2631E 05	
6	45.45	100.36	220.2	239.1	1.000E-06	239.1	238.4	1.000E-06	238.4	2.7586E 05	3.0703E 05	
7	45.39	100.37	217.3	236.3	1.000E-06	236.3	236.0	1.000E-06	235.9	2.7578E 05	2.9193E 05	
8	45.36	100.38	215.8	235.1	1.000E-06	235.1	235.0	1.000E-06	235.0	2.7934E 05	2.8328E 05	
9	45.35	100.38	215.4	235.2	1.000E-06	235.2	235.4	1.000E-06	235.3	2.8577E 05	2.7690E 05	
10	45.36	100.38	216.2	236.9	1.000E-06	237.0	237.5	1.000E-06	237.5	3.0011E 05	2.7268E 05	
11	45.37	100.37	218.8	240.5	1.000E-06	240.6	241.3	1.000E-06	241.3	3.1684E 05	2.8126E 05	
12	45.39	100.37	222.1	244.7	1.000E-06	244.7	245.7	1.000E-06	245.6	3.3152E 05	2.8688E 05	
13	45.45	100.35	226.3	250.0	1.000E-06	250.0	251.1	1.000E-06	251.1	3.5165E 05	3.0220E 05	
14	45.53	100.44	230.8	255.4	1.000E-06	255.4	256.6	1.000E-06	256.6	3.6721E 05	3.1194E 05	
15	45.61	100.42	235.9	262.9	1.000E-06	263.0	265.1	1.000E-06	265.1	4.0820E 05	3.0644E 05	
16	45.74	100.39	245.1	276.4	1.000E-06	276.4	279.7	1.000E-06	279.7	4.8038E 05	3.2042E 05	
17	45.94	100.33	259.5	295.0	1.000E-06	295.0	299.5	1.000E-06	299.5	5.6254E 05	3.4465E 05	
18	46.38	100.50	278.4	314.8	1.000E-06	314.8	317.7	1.000E-06	317.7	5.9429E 05	4.5486E 05	
19	46.49	100.41	290.3	301.2	1.000E-06	301.2	265.0	1.000E-06	265.0	1.7984E 05	1.0467E 06	
20	58.39	100.93	191.6									
	39.50	100.08										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20=SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 197

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
	39.47 52.84	101.48 100.09	174.1									
1				220.0	1.000E-06	220.0	240.1	1.000E-06	240.1	6.2979E 05	2.7291E 04	
2	45.79	101.79	238.3	257.2	1.000E-06	257.2	256.9	1.000E-06	256.8	2.8697E 05	3.0440E 05	
3	45.81	101.80	236.8	252.6	1.000E-06	252.7	251.2	1.000E-06	251.2	2.4063E 05	3.0965E 05	
4	45.65	101.85	230.5	249.8	1.000E-06	245.8	244.6	1.000E-06	244.6	2.2933E 05	2.8811E 05	
5	45.53	101.89	225.1	240.3	1.000E-06	240.3	239.3	1.000E-06	239.3	2.2379E 05	2.6899E 05	
6	45.46	101.80	221.0	236.0	1.000E-06	236.0	235.3	1.000E-06	235.3	2.2021E 05	2.5205E 05	
7	45.40	101.81	218.0	233.2	1.000E-06	233.3	232.9	1.000E-06	232.9	2.2172E 05	2.3822E 05	
8	45.37	101.82	216.5	232.0	1.000E-06	232.1	232.0	1.000E-06	232.0	2.2593E 05	2.2993E 05	
9	45.37	101.82	216.1	232.1	1.000E-06	232.2	232.3	1.000E-06	232.3	2.3247E 05	2.2339E 05	
10	45.37	101.82	216.9	233.9	1.000E-06	233.9	234.5	1.000E-06	234.5	2.4598E 05	2.1807E 05	
11	45.38	101.81	219.5	237.4	1.000E-06	237.4	238.1	1.000E-06	238.1	2.6045E 05	2.2416E 05	
12	45.41	101.81	222.9	241.5	1.000E-06	241.5	242.4	1.000E-06	242.4	2.7322E 05	2.2779E 05	
13	45.46	101.80	227.1	246.6	1.000E-06	246.6	247.7	1.000E-06	247.7	2.9008E 05	2.3971E 05	
14	45.54	101.88	231.7	251.9	1.000E-06	251.9	253.1	1.000E-06	253.1	3.0342E 05	2.3888E 05	
15	45.63	101.86	236.8	259.4	1.000E-06	259.4	261.5	1.000E-06	261.5	3.4139E 05	2.3765E 05	
16	45.75	101.82	246.1	272.5	1.000E-06	272.5	275.9	1.000E-06	275.9	4.0615E 05	2.4271E 05	
17	45.96	101.77	260.6	290.7	1.000E-06	290.7	295.3	1.000E-06	295.3	4.7799E 05	2.5713E 05	
18	46.40	101.93	279.6	309.7	1.000E-06	309.7	312.5	1.000E-06	312.5	4.9299E 05	3.5707E 05	
19	46.50	101.84	291.1	294.7	1.000E-06	294.7	258.3	1.000E-06	258.2	5.9974E 04	9.3385E 05	
20	57.70	101.36	192.0									
	39.47	101.48										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 201

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	39.43 52.85	102.87 101.47	174.3	174.3	1.000E+06	174.3	238.5	1.000E+06	238.5	0.	0.	
2	45.79	103.22	238.5	238.5	1.000E+06	238.5	237.1	1.000E+06	237.1	0.	0.	
3	45.81	103.23	237.1	237.1	1.000E+06	237.1	230.8	1.000E+06	230.8	0.	0.	
4	45.66	103.28	230.8	230.8	1.000E+06	230.8	225.5	1.000E+06	225.5	0.	0.	
5	45.54	103.32	225.5	225.5	1.000E+06	225.5	221.3	1.000E+06	221.3	0.	0.	
6	45.47	103.23	221.3	221.3	1.000E+06	221.3	218.3	1.000E+06	218.3	0.	0.	
7	45.41	103.25	218.3	218.3	1.000E+06	218.3	216.8	1.000E+06	216.8	0.	0.	
8	45.37	103.26	216.8	216.8	1.000E+06	216.8	216.4	1.000E+06	216.4	0.	0.	
9	45.37	103.26	216.4	216.4	1.000E+06	216.4	217.2	1.000E+06	217.2	0.	0.	
10	45.38	103.26	217.2	217.2	1.000E+06	217.2	219.8	1.000E+06	219.8	0.	0.	
11	45.39	103.25	219.8	219.8	1.000E+06	219.8	223.2	1.000E+06	223.2	0.	0.	
12	45.41	103.25	223.2	223.2	1.000E+06	223.2	227.4	1.000E+06	227.4	0.	0.	
13	45.47	103.23	227.4	227.4	1.000E+06	227.4	232.0	1.000E+06	232.0	0.	0.	
14	45.55	103.32	232.0	232.0	1.000E+06	232.0	237.2	1.000E+06	237.2	0.	0.	
15	45.63	103.29	237.2	237.2	1.000E+06	237.2	246.5	1.000E+06	246.5	0.	0.	
16	45.76	103.25	246.5	246.5	1.000E+06	246.5	261.1	1.000E+06	261.1	0.	0.	
17	45.96	103.19	261.1	261.1	1.000E+06	261.1	280.1	1.000E+06	280.1	0.	0.	
18	46.40	103.36	280.1	280.1	1.000E+06	280.1	291.3	1.000E+06	291.3	0.	0.	
19	46.51	103.27	291.3	291.3	1.000E+06	291.3	192.2	1.000E+06	192.2	0.	0.	
20	39.43	102.87										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME ZERO

3/08/67

MESH POINT = 203

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	39.41 52.85	100.47 100.32	174.3	174.3	1.000E+06	174.3	238.5	1.000E+06	238.5	0.	0.	
2	45.79	99.88	238.5	238.5	1.000E+06	238.5	237.1	1.000E+06	237.1	0.	0.	
3	45.81	99.90	237.1	237.1	1.000E+06	237.1	230.8	1.000E+06	230.8	0.	0.	
4	45.66	99.97	230.8	230.8	1.000E+06	230.8	225.5	1.000E+06	225.5	0.	0.	
5	45.54	100.02	225.5	225.5	1.000E+06	225.5	221.3	1.000E+06	221.3	0.	0.	
6	45.47	99.94	221.3	221.3	1.000E+06	221.3	218.3	1.000E+06	218.3	0.	0.	
7	45.41	99.96	218.3	218.3	1.000E+06	218.3	216.8	1.000E+06	216.8	0.	0.	
8	45.37	99.98	216.8	216.8	1.000E+06	216.8	216.4	1.000E+06	216.4	0.	0.	
9	45.37	99.98	216.4	216.4	1.000E+06	216.4	217.2	1.000E+06	217.2	0.	0.	
10	45.38	99.98	217.2	217.2	1.000E+06	217.2	219.8	1.000E+06	219.8	0.	0.	
11	45.39	99.97	219.8	219.8	1.000E+06	219.8	223.2	1.000E+06	223.2	0.	0.	
12	45.41	99.96	223.2	223.2	1.000E+06	223.2	227.4	1.000E+06	227.4	0.	0.	
13	45.47	99.94	227.4	227.4	1.000E+06	227.4	232.0	1.000E+06	232.0	0.	0.	
14	45.55	100.02	232.0	232.0	1.000E+06	232.0	237.2	1.000E+06	237.2	0.	0.	
15	45.63	99.98	237.2	237.2	1.000E+06	237.2	246.5	1.000E+06	246.5	0.	0.	
16	45.76	99.92	246.5	246.5	1.000E+06	246.5	261.1	1.000E+06	261.1	0.	0.	
17	45.96	99.84	261.1	261.1	1.000E+06	261.1	280.1	1.000E+06	280.1	0.	0.	
18	46.40	99.96	280.1	280.1	1.000E+06	280.1	291.3	1.000E+06	291.3	0.	0.	
19	46.51	99.85	291.3	291.3	1.000E+06	291.3	192.2	1.000E+06	192.2	0.	0.	
20	39.41	100.47										

ELAPSED TIME 002129

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SHALL AT TOP-TIME 1 DAY

3/08/67

FLOATING POINT SINGLE VALUE ARRAY

4,5000E 01	-0,	2,5100E-01	2,5100E-01	3,0000E-02	1,5000E-02	4,0000E-02	2,0000E-02
0,	0,	1,3000E 02	1,0000E 02	1,0160E 02	4,5000E 01	4,5000E 01	5,0000E-01
5,0000E-01	7,0000E-01	7,0000E-01	1,0000E 00	9,0200E 04	1,2000E 03	1,2000E 03	1,0000E 00
5,0000E-03	1,5600E 01	4,4300E 02	8,2900E 03	7,7800E-01	4,8000E 01		

HORIZONTAL PEAKING

1,50	1,40	1,30	1,20	1,10	1,05	1,02	1,01	1,01	1,03	1,08	1,12	1,19	1,24
1,31	1,48	1,69	1,97	2,32									

PLATE NO,
VP PROFILE

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
.....1.....

VERTICAL PEAKING FOR PROFILE 1

2,50	3,50	4,60	5,70	6,90	7,90	8,90	10,00	10,90	12,00	12,80	13,70	14,60	15,50
16,20	16,90	17,60	18,20	18,70	19,10	19,50	19,70	19,90	20,00	20,00	20,00	19,90	19,80
19,60	19,30	19,00	18,60	18,20	17,70	17,10	16,40	15,70	15,00	14,10	13,20	12,40	11,40
10,40	9,40	8,40	7,40	6,30	5,30	4,20	3,20	2,20					

FLOFED= 101,53521 LBS./SEC. AVEPL= 100,11856

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SHALL AT TOP-TIME 1 DAY

3/08/67

MESH POINT = 1

DX = 0,00000 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG, F,	TSURFACE DEG, F,	FILMTH INCHES	TINTFACE DEG, F,	TINTFACE DEG, F,	FILMTH INCHES	TSURFACE DEG, F,	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDOW
	48,67	23,59										
	52,93	27,90	130,0									
1				130,0	4,659E-06	130,0	130,0	4,659E-06	130,0	0,	0,	
2	49,50	24,40	130,0	130,0	4,659E-06	130,0	130,0	4,659E-06	130,0	0,	0,	
3	49,50	24,40	130,0	130,0	4,659E-06	130,0	130,0	4,659E-06	130,0	0,	0,	
4	49,50	24,40	130,0	130,0	4,659E-06	130,0	130,0	4,659E-06	130,0	0,	0,	
5	49,50	24,40	130,0	130,0	4,659E-06	130,0	130,0	4,659E-06	130,0	0,	0,	
6	49,50	24,40	130,0	130,0	4,659E-06	130,0	130,0	4,659E-06	130,0	0,	0,	
7	49,50	24,40	130,0	130,0	4,659E-06	130,0	130,0	4,659E-06	130,0	0,	0,	
8	49,50	24,40	130,0	130,0	4,659E-06	130,0	130,0	4,659E-06	130,0	0,	0,	
9	49,50	24,40	130,0	130,0	4,659E-06	130,0	130,0	4,659E-06	130,0	0,	0,	
10	49,50	24,40	130,0	130,0	4,659E-06	130,0	130,0	4,659E-06	130,0	0,	0,	
11	49,50	24,40	130,0	130,0	4,659E-06	130,0	130,0	4,659E-06	130,0	0,	0,	
12	49,50	24,40	130,0	130,0	4,659E-06	130,0	130,0	4,659E-06	130,0	0,	0,	
13	49,50	24,40	130,0	130,0	4,659E-06	130,0	130,0	4,659E-06	130,0	0,	0,	
14	49,50	24,40	130,0	130,0	4,659E-06	130,0	130,0	4,659E-06	130,0	0,	0,	
15	49,50	24,40	130,0	130,0	4,659E-06	130,0	130,0	4,659E-06	130,0	0,	0,	
16	49,50	24,40	130,0	130,0	4,659E-06	130,0	130,0	4,659E-06	130,0	0,	0,	
17	49,50	24,40	130,0	130,0	4,659E-06	130,0	130,0	4,659E-06	130,0	0,	0,	
18	49,51	24,40	130,0	130,0	4,659E-06	130,0	130,0	4,659E-06	130,0	0,	0,	
19	49,51	24,40	130,0	130,0	4,659E-06	130,0	130,0	4,659E-06	130,0	0,	0,	
20	52,65	30,04	130,0	130,0	4,659E-06	130,0	130,0	4,659E-06	130,0	0,	0,	
	48,67	23,59										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20=SMALL AT TOP-TIME 1 DAY

3/08/67

MESH POINT = 5

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
	48.63 92.93	25.61 29.36	130.0									
1				150.1	7.238E=06	150.2	150.2	7.231E=06	150.1	2.3603E 05	2.3731E 05	
2	49.51	26.32	130.1	148.7	6.916E=06	148.8	148.8	6.915E=06	148.7	2.2685E 05	2.2093E 05	
3	49.51	26.32	130.1	147.4	6.729E=06	147.4	147.4	6.729E=06	147.4	2.0907E 05	2.0515E 05	
4	49.51	26.32	130.1	146.0	6.584E=06	146.1	146.1	6.583E=06	146.0	1.8930E 05	1.8938E 05	
5	49.51	26.32	130.1	144.7	6.476E=06	144.8	144.8	6.476E=06	144.7	1.7353E 05	1.7399E 05	
6	49.50	26.32	130.1	144.0	6.388E=06	144.1	144.1	6.388E=06	144.0	1.6565E 05	1.6569E 05	
7	49.50	26.32	130.1	143.6	6.336E=06	143.7	143.7	6.336E=06	143.6	1.6093E 05	1.6095E 05	
8	49.50	26.32	130.1	143.5	6.319E=06	143.5	143.5	6.318E=06	143.5	1.5936E 05	1.5937E 05	
9	49.50	26.32	130.1	143.5	6.319E=06	143.5	143.5	6.319E=06	143.5	1.5936E 05	1.5935E 05	
10	49.50	26.32	130.1	143.8	6.353E=06	143.8	143.8	6.353E=06	143.8	1.6253E 05	1.6250E 05	
11	49.50	26.32	130.1	144.4	6.441E=06	144.5	144.5	6.441E=06	144.4	1.7042E 05	1.7039E 05	
12	49.50	26.32	130.1	145.0	6.512E=06	145.0	145.0	6.512E=06	145.0	1.7674E 05	1.7669E 05	
13	49.50	26.32	130.1	145.9	6.637E=06	146.0	146.0	6.638E=06	145.9	1.8778E 05	1.8773E 05	
14	49.51	26.32	130.1	146.6	6.729E=06	146.6	146.6	6.729E=06	146.6	1.9567E 05	1.9562E 05	
15	49.51	26.32	130.1	147.5	6.859E=06	147.6	147.6	6.860E=06	147.5	2.0674E 05	2.0664E 05	
16	49.51	26.32	130.1	149.8	7.185E=06	149.9	149.9	7.185E=06	149.8	2.3359E 05	2.3344E 05	
17	49.51	26.32	130.1	152.6	7.607E=06	152.7	152.7	7.608E=06	152.6	2.6674E 05	2.6655E 05	
18	49.51	26.32	130.2	156.3	8.206E=06	156.4	156.5	8.207E=06	156.3	3.1093E 05	3.1072E 05	
19	49.51	26.32	130.2	159.9	8.812E=06	160.1	159.0	8.616E=06	158.8	3.5322E 05	3.7887E 05	
20	93.93 48.63	32.51 25.61	130.1									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20=SMALL AT TOP-TIME 1 DAY

3/08/67

MESH POINT = 9

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
	48.63 92.94	25.61 30.83	130.3									
1				156.7	8.355E=06	156.9	156.9	8.362E=06	156.8	3.1157E 05	3.1034E 05	
2	49.51	28.24	130.8	155.1	7.908E=06	155.2	155.2	7.906E=06	155.1	2.8999E 05	2.9046E 05	
3	49.51	28.24	130.7	153.3	7.625E=06	153.4	153.4	7.624E=06	153.3	2.6927E 05	2.6972E 05	
4	49.51	28.24	130.7	151.5	7.406E=06	151.6	151.6	7.405E=06	151.5	2.4853E 05	2.4900E 05	
5	49.51	28.24	130.6	149.7	7.246E=06	149.8	149.8	7.245E=06	149.7	2.2786E 05	2.2821E 05	
6	49.51	28.24	130.6	148.8	7.115E=06	148.9	148.9	7.114E=06	148.8	2.1758E 05	2.1776E 05	
7	49.51	28.24	130.6	148.3	7.037E=06	148.4	148.4	7.037E=06	148.3	2.1141E 05	2.1150E 05	
8	49.51	28.24	130.5	148.1	7.011E=06	148.2	148.2	7.011E=06	148.1	2.0937E 05	2.0939E 05	
9	49.51	28.24	130.5	148.1	7.011E=06	148.2	148.2	7.011E=06	148.1	2.0940E 05	2.0939E 05	
10	49.51	28.24	130.5	148.5	7.062E=06	148.6	148.6	7.063E=06	148.5	2.1361E 05	2.1344E 05	
11	49.51	28.24	130.6	149.4	7.192E=06	149.5	149.5	7.192E=06	149.4	2.2399E 05	2.2379E 05	
12	49.51	28.24	130.6	150.1	7.298E=06	150.2	150.2	7.299E=06	150.1	2.3231E 05	2.3205E 05	
13	49.51	28.24	130.6	151.3	7.486E=06	151.4	151.4	7.487E=06	151.3	2.4683E 05	2.4655E 05	
14	49.51	28.24	130.7	152.2	7.624E=06	152.3	152.3	7.625E=06	152.2	2.5720E 05	2.5692E 05	
15	49.51	28.24	130.7	153.5	7.821E=06	153.6	153.6	7.823E=06	153.5	2.7184E 05	2.7129E 05	
16	49.51	28.24	130.8	156.5	8.316E=06	156.7	156.7	8.319E=06	156.5	3.0724E 05	3.0638E 05	
17	49.51	28.24	130.9	160.2	8.970E=06	160.4	160.5	8.974E=06	160.3	3.5089E 05	3.4979E 05	
18	49.51	28.24	131.0	165.2	9.911E=06	165.5	165.5	9.916E=06	165.2	4.0898E 05	4.0779E 05	
19	49.52	28.24	131.1	170.3	1.094E=05	170.6	169.5	1.070E=05	169.1	4.6773E 05	4.9415E 05	
20	52.31 48.60	34.03 27.63	130.7									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20=SMALL AT TOP-TIME 1 DAY

3/08/67

MESH POINT = 13

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBLK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	48.56 52.94	29.65 32.29	130.6	163.4	9.645E=06	163.7	163.8	9.674E=06	163.6	3.8744E 05	3.8306E 05	
2	49.52	30.16	131.6	161.6	9.055E=06	161.8	161.8	9.050E=06	161.6	3.5911E 05	3.6003E 05	
3	49.52	30.16	131.5	159.3	8.653E=06	159.5	159.5	8.650E=06	159.3	3.3343E 05	3.3434E 05	
4	49.52	30.16	131.4	157.1	8.344E=06	157.3	157.2	8.342E=06	157.1	3.0773E 05	3.0867E 05	
5	49.52	30.16	131.3	154.9	8.119E=06	155.0	155.0	8.117E=06	154.8	2.8216E 05	2.8287E 05	
6	49.52	30.16	131.2	153.7	7.936E=06	153.9	153.9	7.935E=06	153.7	2.6949E 05	2.6986E 05	
7	49.52	30.16	131.1	153.0	7.828E=06	153.2	153.2	7.827E=06	153.0	2.6187E 05	2.6206E 05	
8	49.52	30.16	131.1	152.8	7.792E=06	152.9	152.9	7.791E=06	152.8	2.5938E 05	2.5943E 05	
9	49.52	30.16	131.1	152.8	7.792E=06	152.9	153.0	7.792E=06	152.8	2.5945E 05	2.5935E 05	
10	49.52	30.16	131.1	153.3	7.863E=06	153.4	153.4	7.865E=06	153.3	2.6471E 05	2.6437E 05	
11	49.52	30.16	131.2	154.4	8.043E=06	154.5	154.5	8.044E=06	154.4	2.7759E 05	2.7717E 05	
12	49.52	30.16	131.2	155.3	8.192E=06	155.4	155.5	8.194E=06	155.3	2.8791E 05	2.8739E 05	
13	49.52	30.16	131.3	156.8	8.455E=06	157.0	157.0	8.457E=06	156.9	3.0592E 05	3.0535E 05	
14	49.52	30.16	131.3	158.0	8.650E=06	158.2	158.2	8.652E=06	158.0	3.1875E 05	3.1819E 05	
15	49.52	30.16	131.4	159.6	8.931E=06	159.8	159.8	8.935E=06	159.6	3.3701E 05	3.3589E 05	
16	49.52	30.16	131.5	163.4	9.637E=06	163.6	163.6	9.643E=06	163.4	3.8098E 05	3.7925E 05	
17	49.52	30.16	131.7	168.1	1.058E=05	168.4	168.4	1.059E=05	168.1	4.3515E 05	4.3295E 05	
18	49.52	30.16	132.0	174.3	1.197E=05	174.7	174.7	1.198E=05	174.3	5.0717E 05	5.0476E 05	
19	49.53	30.16	132.3	181.0	1.361E=05	181.5	180.5	1.335E=05	180.0	5.8419E 05	6.0752E 05	
20	50.79 48.56	35.42 29.65	131.4									

MESH POINTS 14 TO 98 HAVE BEEN OMITTED

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20=SMALL AT TOP-TIME 1 DAY

3/08/67

MESH POINT = 99

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBLK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	44.85 56.12	67.35 66.96	148.4	259.9	5.939E=05	265.5	274.1	6.823E=05	268.8	1.4826E 06	1.2234E 06	*
2	48.28	67.33	180.9	271.0	6.661E=05	276.4	276.0	6.606E=05	270.6	1.2541E 06	1.2715E 06	*
3	48.27	67.33	178.6	262.5	5.813E=05	266.9	266.3	5.769E=05	262.0	1.1600E 06	1.1852E 06	*
4	48.20	67.35	175.1	253.5	5.182E=05	257.0	256.5	5.150E=05	252.9	1.0695E 06	1.0953E 06	*
5	48.14	67.37	171.5	244.6	4.743E=05	247.5	247.2	4.723E=05	244.1	9.8320E 05	1.0012E 06	*
6	47.96	67.20	168.9	239.7	4.412E=05	242.3	242.1	4.396E=05	239.4	9.4150E 05	9.5270E 05	*
7	47.93	67.21	167.5	236.7	4.213E=05	239.2	239.1	4.205E=05	236.6	9.1723E 05	9.2285E 05	*
8	47.92	67.21	166.8	235.6	4.141E=05	238.1	238.0	4.139E=05	235.6	9.1031E 05	9.1173E 05	*
9	47.92	67.21	166.6	235.7	4.143E=05	238.1	238.2	4.147E=05	235.7	9.1250E 05	9.0954E 05	*
10	47.92	67.21	166.9	237.6	4.273E=05	240.2	240.4	4.287E=05	237.8	9.3408E 05	9.2404E 05	*
11	47.93	67.21	168.2	242.1	4.587E=05	245.0	245.2	4.605E=05	242.4	9.8038E 05	9.6794E 05	*
12	47.94	67.21	169.8	246.1	4.885E=05	249.3	249.6	4.909E=05	246.4	1.0175E 06	1.0030E 06	*
13	47.97	67.20	171.7	252.1	5.376E=05	255.9	256.1	5.400E=05	252.5	1.0802E 06	1.0666E 06	*
14	48.13	67.37	173.9	256.9	5.787E=05	261.1	261.4	5.818E=05	257.3	1.1266E 06	1.1103E 06	*
15	48.17	67.36	176.1	263.6	6.430E=05	268.6	269.3	6.504E=05	264.4	1.1978E 06	1.1654E 06	*
16	48.21	67.35	180.5	278.6	8.053E=05	285.6	286.7	8.191E=05	279.9	1.3622E 06	1.3077E 06	*
17	48.29	67.33	187.3	297.4	1.053E=04	307.9	309.2	1.072E=04	298.9	1.5553E 06	1.4934E 06	*
18	48.41	67.30	196.1	320.9	2.298E=04	347.5	349.0	2.340E=04	322.9	1.8119E 06	1.7420E 06	*
19	48.51	67.27	206.2	341.7	1.890E=04	366.3	360.5	1.752E=04	336.2	2.0238E 06	2.1615E 06	*
20	50.23 44.85	66.95 67.35	164.5									*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME 1 DAY

3/08/67

MESH POINT = 103

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBLK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR-FT2	Q / A BTU/HR-FT2	WINDOW
1	44.59 56.20	68.51 68.21	149.3									
2	48.07	68.45	183.2	260.8	6.049E=05	266.6	275.8	7.009E=05	270.4	1.4911E 06	1.2149E 06	
3	48.06	68.46	180.9	273.1	6.903E=05	278.7	278.3	6.845E=05	272.7	1.2533E 06	1.2723E 06	
4	47.99	68.48	177.3	264.5	6.015E=05	269.0	268.4	5.964E=05	263.9	1.1588E 06	1.1864E 06	
5	47.93	68.50	173.5	255.3	5.349E=05	258.9	258.4	5.313E=05	254.6	1.0687E 06	1.0961E 06	
				246.3	4.890E=05	249.3	249.0	4.869E=05	245.8	9.8293E 05	1.0015E 06	
6	47.75	68.33	170.8									
7	47.72	68.34	169.3	241.3	4.546E=05	244.1	243.8	4.529E=05	241.1	9.4140E 05	9.5280E 05	
8	47.71	68.34	168.5	238.4	4.338E=05	240.9	240.8	4.330E=05	238.2	9.1707E 05	9.2301E 05	
9	47.71	68.34	168.3	237.3	4.263E=05	239.8	239.7	4.261E=05	237.2	9.1027E 05	9.1177E 05	
10	47.71	68.34	168.7	237.3	4.265E=05	239.8	239.9	4.270E=05	237.4	9.1259E 05	9.0946E 05	
				239.3	4.400E=05	241.9	242.1	4.415E=05	239.5	9.3436E 05	9.2377E 05	
11	47.72	68.34	170.0									
12	47.73	68.34	171.7	243.8	4.726E=05	248.7	247.0	4.747E=05	244.0	9.8026E 05	9.6806E 05	
13	47.75	68.33	173.7	247.8	5.038E=05	251.0	251.4	5.054E=05	248.1	1.0179E 06	1.0020E 06	
14	47.92	68.56	176.0	253.9	5.548E=05	257.7	258.0	5.575E=05	254.2	1.0807E 06	1.0661E 06	
15	47.96	68.49	178.3	258.7	5.982E=05	263.0	263.4	6.020E=05	259.1	1.1272E 06	1.1098E 06	
				265.7	6.666E=05	270.8	271.5	6.747E=05	266.5	1.1996E 06	1.1636E 06	
16	48.01	68.48	182.9									
17	48.09	68.45	190.0	280.9	8.347E=05	280.2	289.4	8.487E=05	282.3	1.3638E 06	1.3062E 06	
18	48.20	68.42	199.2	299.9	1.094E=04	310.8	312.1	1.118E=04	301.4	1.3556E 06	1.4932E 06	
19	48.31	68.39	209.8	323.4	2.428E=04	351.7	353.3	2.472E=04	325.7	1.8151E 06	1.7388E 06	
20	52.81	69.66	165.8	342.1	1.909E=04	366.4	357.5	1.696E=04	333.6	1.9855E 06	2.1998E 06	
	44.59	68.51										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME 1 DAY

3/08/67

MESH POINT = 107

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBLK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR-FT2	Q / A BTU/HR-FT2	WINDOW
1	44.54 56.21	70.23 69.81	150.8									
2	48.12	70.15	186.4	261.0	6.147E=05	267.7	277.4	7.180E=05	271.9	1.4946E 06	1.2014E 06	
3	48.11	70.16	184.0	275.2	7.134E=05	280.9	280.5	7.070E=05	274.7	1.2484E 06	1.2682E 06	
4	48.04	70.19	180.1	266.5	6.212E=05	271.1	270.4	6.154E=05	265.7	1.1526E 06	1.1842E 06	
5	47.97	70.21	176.2	257.0	5.510E=05	260.8	260.1	5.468E=05	256.3	1.0636E 06	1.0935E 06	
				247.9	5.027E=05	251.0	250.6	5.002E=05	247.4	9.7850E 05	9.9883E 05	
6	47.79	70.03	173.2									
7	47.76	70.04	171.6	242.9	4.669E=05	245.7	245.4	4.650E=05	242.6	9.3776E 05	9.4970E 05	
8	47.74	70.04	170.8	239.9	4.454E=05	242.5	242.4	4.444E=05	239.8	9.1377E 05	9.1976E 05	
9	47.74	70.04	170.6	238.8	4.376E=05	241.4	241.3	4.374E=05	238.8	9.0702E 05	9.0853E 05	
10	47.74	70.04	171.1	238.8	4.378E=05	241.4	241.5	4.383E=05	238.9	9.0935E 05	9.0620E 05	
				240.8	4.518E=05	243.5	243.7	4.535E=05	241.0	9.3110E 05	9.2041E 05	
11	47.75	70.04	172.5									
12	47.77	70.04	174.2	245.3	4.854E=05	248.3	248.6	4.877E=05	245.6	9.7733E 05	9.6405E 05	
13	47.79	70.03	176.4	249.3	5.179E=05	252.7	253.1	5.209E=05	249.7	1.0149E 06	9.9834E 05	
14	47.96	70.21	178.8	255.5	5.713E=05	259.5	259.8	5.747E=05	255.9	1.0776E 06	1.0615E 06	
15	48.00	70.20	181.3	260.5	6.177E=05	264.9	265.4	6.219E=05	260.9	1.1244E 06	1.1046E 06	
				267.6	6.893E=05	272.9	273.8	6.984E=05	268.6	1.1974E 06	1.1574E 06	
16	48.05	70.18	186.1									
17	48.14	70.15	193.6	283.0	8.624E=05	290.5	291.7	8.768E=05	284.4	1.3590E 06	1.3014E 06	
18	48.26	70.11	203.4	302.0	1.132E=04	313.3	314.8	1.162E=04	303.8	1.3549E 06	1.4830E 06	
19	48.37	70.08	214.5	326.1	1.811E=04	347.1	348.8	1.851E=04	328.3	1.8123E 06	1.7289E 06	
20	51.50	69.96	167.4	345.3	1.995E=04	370.7	362.4	1.787E=04	337.4	1.9864E 06	2.1839E 06	
	44.54	70.23										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME 1 DAY

3/08/67

MESH POINT = 111

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDOW
	44.26 50.00	71.81 71.29										
1			151.6	262.9	6.250E+05	268.9	279.2	7.354E+05	273.6	1.4965E 06	1.1864E 06	*
2	47.90	71.67	189.5	277.6	7.381E+05	283.4	283.0	7.320E+05	277.1	1.2417E 06	1.2623E 06	*
3	47.90	71.68	187.1	268.8	6.441E+05	273.5	272.8	6.376E+05	268.0	1.1456E 06	1.1795E 06	*
4	47.82	71.71	183.0	259.1	5.704E+05	263.0	262.3	5.657E+05	258.3	1.0562E 06	1.0901E 06	*
5	47.75	71.74	178.8	249.7	5.192E+05	253.0	252.5	5.163E+05	249.2	9.7267E 05	9.9475E 05	*
6	47.56	71.56	175.7	244.6	4.814E+05	247.5	247.2	4.793E+05	244.3	9.3256E 05	9.4544E 05	*
7	47.53	71.56	174.0	241.6	4.589E+05	244.3	244.2	4.578E+05	241.5	9.0894E 05	9.1540E 05	*
8	47.52	71.56	173.2	240.5	4.507E+05	243.1	243.1	4.505E+05	240.5	9.0241E 05	9.0404E 05	*
9	47.52	71.56	173.0	240.5	4.509E+05	243.1	243.2	4.515E+05	240.6	9.0493E 05	9.0152E 05	*
10	47.52	71.56	173.4	242.5	4.655E+05	245.3	245.5	4.674E+05	242.8	9.2687E 05	9.1536E 05	*
11	47.53	71.56	174.9	247.0	5.006E+05	250.2	250.5	5.032E+05	247.4	9.7299E 05	9.5867E 05	*
12	47.54	71.56	176.7	251.2	5.352E+05	254.7	255.0	5.387E+05	251.6	1.0106E 06	9.9263E 05	*
13	47.57	71.55	179.0	257.5	5.914E+05	261.6	262.0	5.952E+05	257.9	1.0734E 06	1.0550E 06	*
14	47.74	71.74	181.5	262.6	6.402E+05	267.2	267.7	6.448E+05	263.1	1.1199E 06	1.0979E 06	*
15	47.78	71.72	184.2	270.0	7.139E+05	275.4	276.3	7.230E+05	271.0	1.1929E 06	1.1501E 06	*
16	47.83	71.70	189.3	285.4	8.917E+05	293.1	294.3	9.063E+05	286.8	1.3525E 06	1.2946E 06	*
17	47.92	71.67	197.2	304.6	1.175E+04	316.3	318.0	1.209E+04	306.6	1.5519E 06	1.4708E 06	*
18	48.05	71.63	207.6	329.1	1.644E+04	346.1	350.0	1.687E+04	331.4	1.8060E 06	1.7175E 06	*
19	48.16	71.59	219.1	347.3	2.053E+04	373.1	363.6	1.807E+04	338.3	1.9610E 06	2.1885E 06	*
20	51.83	71.34	169.0									*
	44.26	71.81										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME 1 DAY

3/08/67

MESH POINT = 115

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDOW
	43.99 55.96	73.37 72.77										
1			152.8	263.6	6.275E+05	269.6	280.4	7.443E+05	274.9	1.4923E 06	1.1675E 06	*
2	47.69	73.18	192.6	270.4	7.543E+05	285.4	285.0	7.480E+05	279.0	1.2321E 06	1.2503E 06	*
3	47.68	73.19	190.1	270.8	6.600E+05	275.6	274.8	6.534E+05	269.9	1.1346E 06	1.1765E 06	*
4	47.60	73.22	185.8	260.9	5.851E+05	264.9	264.1	5.800E+05	260.1	1.0455E 06	1.0823E 06	*
5	47.53	73.25	181.4	251.4	5.321E+05	254.7	254.2	5.288E+05	250.8	9.6296E 05	9.8752E 05	*
6	47.34	73.07	178.2	246.2	4.927E+05	249.1	248.0	4.902E+05	245.8	9.2398E 05	9.3784E 05	*
7	47.31	73.08	176.4	243.1	4.689E+05	245.8	245.7	4.677E+05	242.9	9.0085E 05	9.0778E 05	*
8	47.30	73.08	175.5	242.0	4.602E+05	244.6	244.6	4.600E+05	241.9	8.9458E 05	8.9632E 05	*
9	47.30	73.08	175.3	242.0	4.605E+05	244.6	244.7	4.611E+05	242.1	8.9728E 05	8.9362E 05	*
10	47.30	73.08	175.7	244.0	4.758E+05	246.8	247.0	4.780E+05	244.3	9.1936E 05	9.0701E 05	*
11	47.31	73.08	177.3	248.6	5.124E+05	251.7	252.0	5.153E+05	248.9	9.6521E 05	9.4981E 05	*
12	47.32	73.07	179.2	252.8	5.485E+05	256.3	256.8	5.523E+05	253.3	1.0030E 06	9.8292E 05	*
13	47.35	73.07	181.7	259.3	6.064E+05	263.4	263.8	6.105E+05	259.8	1.0652E 06	1.0449E 06	*
14	47.52	73.25	184.3	264.5	6.563E+05	269.2	269.7	6.611E+05	265.1	1.1111E 06	1.0876E 06	*
15	47.56	73.24	187.1	271.9	7.309E+05	277.5	278.4	7.405E+05	272.9	1.1828E 06	1.1400E 06	*
16	47.62	73.21	192.4	287.3	9.136E+05	295.2	296.5	9.329E+05	288.8	1.3435E 06	1.2808E 06	*
17	47.71	73.18	200.9	306.8	1.209E+04	318.8	320.6	1.245E+04	309.0	1.5425E 06	1.4541E 06	*
18	47.84	73.13	211.8	331.7	1.692E+04	351.2	353.2	1.741E+04	334.2	1.7941E 06	1.6990E 06	*
19	47.96	73.08	223.8	348.9	2.080E+04	374.5	363.5	1.791E+04	338.3	1.9244E 06	2.1893E 06	*
20	52.32	72.83	170.6									*
	43.99	73.37										

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME 1 DAY

3/08/67

MESH POINT = 116

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT ²	Q / A BTU/HR*FT ²	WINDOW
1	43.98 56.12	73.79 73.28	153.1									*
2	47.70	73.59	193.4	263.5	6.307E+05	269.6	280.6	7.499E+05	275.0	1.4917E 06	1.1613E 06	*
3	47.69	73.60	190.9	279.7	7.621E+05	285.7	285.4	7.557E+05	279.3	1.2288E 06	1.2473E 06	*
4	47.61	73.63	186.5	271.1	6.670E+05	276.0	275.2	6.605E+05	270.3	1.1318E 06	1.1675E 06	*
5	47.54	73.67	182.1	261.3	5.916E+05	265.3	264.5	5.863E+05	260.4	1.0425E 06	1.0799E 06	*
				251.7	5.378E+05	255.0	254.5	5.344E+05	251.1	9.6009E 05	9.8544E 05	*
6	47.35	73.48	178.8									*
7	47.32	73.49	179.0	246.4	4.978E+05	249.4	249.1	4.953E+05	246.1	9.2149E 05	9.3561E 05	*
8	47.31	73.49	176.1	243.4	4.737E+05	246.1	246.0	4.724E+05	243.2	8.9848E 05	9.0555E 05	*
9	47.30	73.49	175.8	242.2	4.649E+05	244.9	244.8	4.646E+05	242.2	8.9229E 05	8.9406E 05	*
10	47.31	73.49	176.3	242.3	4.651E+05	244.9	245.0	4.658E+05	242.3	8.9504E 05	8.9131E 05	*
				244.3	4.807E+05	247.1	247.3	4.829E+05	244.5	9.1715E 05	9.0458E 05	*
11	47.32	73.49	177.9									*
12	47.33	73.49	175.9	248.8	5.177E+05	252.0	252.4	5.207E+05	249.2	9.6292E 05	9.4724E 05	*
13	47.36	73.48	182.3	253.1	5.544E+05	256.7	257.1	5.583E+05	253.6	1.0008E 06	9.8006E 05	*
14	47.53	73.67	185.0	259.6	6.131E+05	263.8	264.2	6.173E+05	260.1	1.0627E 06	1.0420E 06	*
15	47.57	73.65	187.8	264.0	6.635E+05	269.0	270.1	6.681E+05	265.5	1.1085E 06	1.0846E 06	*
				272.3	7.386E+05	277.9	278.8	7.484E+05	273.3	1.1799E 06	1.1371E 06	*
16	47.63	73.63	193.2									*
17	47.72	73.59	201.8	287.7	9.240E+05	295.6	297.0	9.440E+05	289.2	1.3411E 06	1.2765E 06	*
18	47.86	73.54	212.8	307.2	1.224E+04	319.3	321.2	1.261E+04	309.5	1.5393E 06	1.4497E 06	*
19	47.97	73.49	224.9	332.2	1.714E+04	351.9	353.9	1.764E+04	334.8	1.7907E 06	1.6935E 06	*
20	52.54	73.27	171.0	349.1	2.101E+04	374.9	363.4	1.802E+04	338.2	1.9145E 06	2.1888E 06	*
	43.98	73.79										*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-SMALL AT TOP-TIME 1 DAY

3/08/67

MESH POINT = 117

DX = 0.00010 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT ²	Q / A BTU/HR*FT ²	WINDOW
1	41.94 54.95	72.63 72.43	153.1									*
2	46.05	72.58	193.4	265.5	6.514E+05	271.8	282.9	7.755E+05	277.2	1.4937E 06	1.1593E 06	*
3	46.04	72.59	190.9	282.2	7.908E+05	288.3	288.1	7.845E+05	281.8	1.2292E 06	1.2469E 06	*
4	45.93	72.60	186.5	273.5	6.916E+05	278.5	277.8	6.852E+05	272.7	1.1326E 06	1.1666E 06	*
5	45.81	72.62	182.1	263.6	6.131E+05	267.7	266.9	6.079E+05	262.7	1.0433E 06	1.0791E 06	*
				253.8	5.565E+05	257.2	256.7	5.528E+05	253.2	9.5979E 05	9.8572E 05	*
6	45.74	72.50	178.8									*
7	45.70	72.50	177.0	248.4	5.140E+05	251.4	251.1	5.116E+05	248.0	9.2178E 05	9.3530E 05	*
8	45.68	72.50	176.1	245.3	4.890E+05	248.1	247.9	4.878E+05	245.1	8.9862E 05	9.0539E 05	*
9	45.67	72.50	175.8	244.1	4.799E+05	246.9	246.8	4.796E+05	244.1	8.9231E 05	8.9402E 05	*
10	45.68	72.50	176.3	244.1	4.802E+05	246.9	247.0	4.808E+05	244.2	8.9497E 05	8.9136E 05	*
				246.2	4.964E+05	249.1	249.3	4.986E+05	246.5	9.1692E 05	9.0478E 05	*
11	45.69	72.50	177.9									*
12	45.71	72.50	179.9	250.8	5.351E+05	254.1	254.5	5.380E+05	251.2	9.6263E 05	9.4750E 05	*
13	45.75	72.50	182.3	255.2	5.732E+05	258.6	259.3	5.771E+05	255.6	1.0005E 06	9.8043E 05	*
14	45.81	72.62	185.0	261.8	6.351E+05	266.2	266.6	6.397E+05	262.3	1.0631E 06	1.0415E 06	*
15	45.86	72.61	187.8	267.3	6.687E+05	272.2	272.6	6.933E+05	267.8	1.1080E 06	1.0851E 06	*
				274.7	7.670E+05	280.5	281.4	7.766E+05	275.7	1.1789E 06	1.1380E 06	*
16	45.94	72.60	193.2									*
17	46.08	72.58	201.8	290.3	9.609E+05	298.6	299.9	9.807E+05	291.8	1.3397E 06	1.2779E 06	*
18	46.38	72.64	212.8	310.0	1.272E+04	322.6	324.3	1.308E+04	312.1	1.5365E 06	1.4527E 06	*
19	46.52	72.60	225.0	335.1	1.780E+04	355.5	357.5	1.830E+04	337.6	1.7890E 06	1.6952E 06	*
20	68.40	85.91	171.0	341.1	1.897E+04	362.3	336.9	1.341E+04	316.7	1.7473E 06	2.3560E 06	*
	41.94	72.63										*

MESH POINTS 118 TO 203 HAVE BEEN OMITTED

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-TIME 3 DAYS FLAKEING ON PL18

3/08/67

FLOATING POINT SINGLE VALUE ARRAY

4,5000E-01	-0,	2,5100E+01	2,5100E+01	3,0000E+02	1,5000E+02	4,0000E+02	2,0000E+02
0,	0,	1,3000E-02	1,0000E-02	1,0154E-02	4,5000E-01	4,5000E-01	5,0000E+01
5,0000E+01	7,0000E+01	7,0000E+01	1,0000E-00	9,0200E-04	1,2000E-03	1,2000E-03	1,6000E-00
5,0000E+03	1,5600E-01	4,4300E-02	8,2900E-03	7,7800E+01	0,		

HORIZONTAL PEAKING

1,50	1,40	1,30	1,20	1,10	1,05	1,02	1,01	1,01	1,03	1,08	1,12	1,19	1,24
1,31	1,48	1,69	1,97	2,32									

PLATE NO.	VP PROFILE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
3*	2617	2	18	42	1,0000E+06			2	18	43	1,0000E+06			2	18	44	1,0000E+06			1270
3*	2617	2	18	45	1,0000E+06			2	18	46	1,0000E+06			2	18	47	1,0000E+06			1280
3*	2617	2	18	48	1,0000E+06			2	18	49	1,0000E+06			2	18	50	1,0000E+06			1290
3*	2617	2	18	51	1,0000E+06			2	18	52	1,0000E+06			2	18	53	1,0000E+06			1300
3*	2617	2	18	54	1,0000E+06			2	18	55	1,0000E+06			2	18	56	1,0000E+06			1310
21	2617	2	18	57	1,0000E+06			2	18	58	1,0000E+06			-0	-0	-0	-0,			1320

FLOFED= 101,53732 LBS./SEC, AVEPL= 99,99624

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-TIME 3 DAYS FLAKEING ON PL18

3/08/67

MESH POINT = 1

DX = 0,00000 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBLK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	48,67 52,93	23,59 27,90	130,0									
2	49,51	24,40	130,0	130,0	1,016E+05	130,0	130,0	1,016E+05	130,0	0,	0,	
3	49,51	24,40	130,0	130,0	1,016E+05	130,0	130,0	1,016E+05	130,0	0,	0,	
4	49,51	24,40	130,0	130,0	1,016E+05	130,0	130,0	1,016E+05	130,0	0,	0,	
5	49,50	24,40	130,0	130,0	1,016E+05	130,0	130,0	1,016E+05	130,0	0,	0,	
6	49,50	24,40	130,0	130,0	1,016E+05	130,0	130,0	1,016E+05	130,0	0,	0,	
7	49,50	24,40	130,0	130,0	1,016E+05	130,0	130,0	1,016E+05	130,0	0,	0,	
8	49,50	24,40	130,0	130,0	1,016E+05	130,0	130,0	1,016E+05	130,0	0,	0,	
9	49,50	24,40	130,0	130,0	1,016E+05	130,0	130,0	1,016E+05	130,0	0,	0,	
10	49,50	24,40	130,0	130,0	1,016E+05	130,0	130,0	1,016E+05	130,0	0,	0,	
11	49,50	24,40	130,0	130,0	1,016E+05	130,0	130,0	1,016E+05	130,0	0,	0,	
12	49,50	24,40	130,0	130,0	1,016E+05	130,0	130,0	1,016E+05	130,0	0,	0,	
13	49,50	24,40	130,0	130,0	1,016E+05	130,0	130,0	1,016E+05	130,0	0,	0,	
14	49,50	24,40	130,0	130,0	1,016E+05	130,0	130,0	1,016E+05	130,0	0,	0,	
15	49,51	24,40	130,0	130,0	1,016E+05	130,0	130,0	1,016E+05	130,0	0,	0,	
16	49,51	24,40	130,0	130,0	1,016E+05	130,0	130,0	1,016E+05	130,0	0,	0,	
17	49,51	24,40	130,0	130,0	1,016E+05	130,0	130,0	1,016E+05	130,0	0,	0,	
18	49,51	24,40	130,0	130,0	1,016E+05	130,0	130,0	1,016E+05	130,0	0,	0,	
19	49,51	24,40	130,0	130,0	1,016E+05	130,0	130,0	1,016E+05	130,0	0,	0,	
20	55,65 48,67	30,04 23,59	130,0	130,0	1,016E+05	130,0	130,0	1,016E+05	130,0	0,	0,	

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-TIME 3 DAYS FLAKEING ON PL18

3/08/67

MESH POINT = 5

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBLK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	U / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	48.64 52.94	25.61 29.37	130.0	150.1	1.601E+05	150.4	150.3	1.600E+05	150.1	2.3603E 05	2.3730E 05	
2	49.51	26.32	130.1	148.7	1.543E+05	148.9	148.9	1.543E+05	148.7	2.2085E 05	2.2093E 05	
3	49.51	26.32	130.1	147.4	1.499E+05	147.6	147.5	1.499E+05	147.4	2.0507E 05	2.0515E 05	
4	49.51	26.32	130.1	146.0	1.459E+05	146.2	146.2	1.459E+05	146.0	1.8929E 05	1.8938E 05	
5	49.51	26.32	130.1	144.7	1.423E+05	144.8	144.8	1.423E+05	144.7	1.7353E 05	1.7359E 05	
6	49.51	26.32	130.1	144.0	1.402E+05	144.2	144.2	1.402E+05	144.0	1.6565E 05	1.6569E 05	
7	49.51	26.32	130.1	143.6	1.390E+05	143.8	143.8	1.390E+05	143.6	1.6093E 05	1.6094E 05	
8	49.51	26.32	130.1	143.5	1.386E+05	143.6	143.6	1.386E+05	143.5	1.5935E 05	1.5936E 05	
9	49.51	26.32	130.1	143.5	1.386E+05	143.6	143.6	1.386E+05	143.5	1.5936E 05	1.5935E 05	
10	49.51	26.32	130.1	143.8	1.394E+05	143.9	143.9	1.394E+05	143.8	1.6253E 05	1.6250E 05	
11	49.51	26.32	130.1	144.4	1.414E+05	144.6	144.6	1.414E+05	144.4	1.7042E 05	1.7038E 05	
12	49.51	26.32	130.1	145.0	1.431E+05	145.1	145.1	1.431E+05	145.0	1.7674E 05	1.7669E 05	
13	49.51	26.32	130.1	145.9	1.461E+05	146.1	146.1	1.461E+05	145.9	1.8778E 05	1.8773E 05	
14	49.51	26.32	130.1	146.4	1.482E+05	146.7	146.7	1.482E+05	146.4	1.9967E 05	1.9962E 05	
15	49.51	26.32	130.1	147.5	1.512E+05	147.7	147.7	1.513E+05	147.5	2.0674E 05	2.0664E 05	
16	49.51	26.32	130.1	149.8	1.589E+05	150.0	150.0	1.589E+05	149.8	2.3359E 05	2.3344E 05	
17	49.51	26.32	130.1	152.6	1.687E+05	152.8	152.8	1.688E+05	152.6	2.6674E 05	2.6655E 05	
18	49.51	26.32	130.2	156.3	1.828E+05	156.6	156.7	1.828E+05	156.3	3.1093E 05	3.1072E 05	
19	49.51	26.32	130.2	159.9	1.970E+05	160.3	159.2	1.926E+05	158.8	3.5327E 05	3.7882E 05	
20	53.93 48.64	32.51 25.61	130.1									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-TIME 3 DAYS FLAKEING ON PL18

3/08/67

MESH POINT = 9

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBLK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	U / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	48.60 52.94	27.64 30.83	130.3	156.7	1.851E+05	157.1	157.1	1.853E+05	156.8	3.1197E 05	3.1034E 05	
2	49.51	28.24	130.8	155.1	1.773E+05	155.4	155.4	1.773E+05	155.1	2.8994E 05	2.9048E 05	
3	49.51	28.24	130.7	153.3	1.707E+05	153.6	153.6	1.706E+05	153.3	2.6927E 05	2.6972E 05	
4	49.51	28.24	130.7	151.5	1.647E+05	151.8	151.8	1.646E+05	151.5	2.4853E 05	2.4900E 05	
5	49.51	28.24	130.6	149.7	1.593E+05	150.0	149.9	1.592E+05	149.7	2.2786E 05	2.2821E 05	
6	49.51	28.24	130.6	148.8	1.562E+05	149.0	149.0	1.562E+05	148.8	2.1757E 05	2.1776E 05	
7	49.51	28.24	130.6	148.3	1.544E+05	148.5	148.5	1.544E+05	148.3	2.1140E 05	2.1150E 05	
8	49.51	28.24	130.5	148.1	1.538E+05	148.3	148.3	1.538E+05	148.1	2.0936E 05	2.0939E 05	
9	49.51	28.24	130.5	148.1	1.538E+05	148.3	148.3	1.538E+05	148.1	2.0940E 05	2.0935E 05	
10	49.51	28.24	130.5	148.5	1.550E+05	148.7	148.7	1.550E+05	148.5	2.1361E 05	2.1344E 05	
11	49.51	28.24	130.6	149.3	1.580E+05	149.6	149.6	1.580E+05	149.4	2.2394E 05	2.2378E 05	
12	49.51	28.24	130.6	150.1	1.605E+05	150.3	150.3	1.605E+05	150.1	2.3231E 05	2.3205E 05	
13	49.51	28.24	130.6	151.3	1.648E+05	151.6	151.6	1.649E+05	151.3	2.4683E 05	2.4655E 05	
14	49.51	28.24	130.7	152.2	1.681E+05	152.5	152.5	1.681E+05	152.2	2.5719E 05	2.5692E 05	
15	49.51	28.24	130.7	153.5	1.727E+05	153.8	153.8	1.727E+05	153.5	2.7184E 05	2.7129E 05	
16	49.51	28.24	130.8	156.5	1.842E+05	156.9	156.9	1.842E+05	156.5	3.0724E 05	3.0638E 05	
17	49.51	28.24	130.9	160.2	1.993E+05	160.7	160.7	1.994E+05	160.3	3.5084E 05	3.4979E 05	
18	49.52	28.24	131.0	165.2	2.212E+05	165.8	165.8	2.213E+05	165.2	4.0898E 05	4.0779E 05	
19	49.52	28.24	131.1	170.3	2.453E+05	171.0	169.9	2.397E+05	169.1	4.6778E 05	4.9410E 05	
20	52.31 48.60	34.03 27.64	130.7									

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-TIME 3 DAYS FLAKEING ON PL18

3/08/67

MESH POINT = 13

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	48.56 52.94	29.65 32.30	130.6									
2	49.52	30.16	131.6	163.4	2.138E+05	164.0	164.1	2.144E+05	163.6	3.8743E 05	3.8307E 05	
3	49.52	30.16	131.5	161.6	2.038E+05	162.0	162.0	2.037E+05	161.6	3.5911E 05	3.6002E 05	
4	49.52	30.16	131.4	159.3	1.944E+05	159.8	159.7	1.943E+05	159.3	3.3343E 05	3.3433E 05	
5	49.52	30.16	131.3	157.1	1.859E+05	157.5	157.4	1.859E+05	157.1	3.0773E 05	3.0867E 05	
				154.9	1.784E+05	155.2	155.2	1.784E+05	154.8	2.8216E 05	2.8287E 05	
6	49.52	30.16	131.2									
7	49.52	30.16	131.1	153.7	1.742E+05	154.0	154.0	1.742E+05	153.7	2.6949E 05	2.6986E 05	
8	49.52	30.16	131.1	153.0	1.717E+05	153.3	153.3	1.717E+05	153.0	2.6188E 05	2.6206E 05	
9	49.52	30.16	131.1	152.8	1.708E+05	153.1	153.1	1.708E+05	152.8	2.5938E 05	2.5942E 05	
10	49.52	30.16	131.1	152.8	1.709E+05	153.1	153.1	1.709E+05	152.8	2.5945E 05	2.5935E 05	
				153.3	1.725E+05	153.6	153.6	1.725E+05	153.3	2.6471E 05	2.6437E 05	
11	49.52	30.16	131.2									
12	49.52	30.16	131.2	154.4	1.767E+05	154.7	154.7	1.767E+05	154.4	2.7758E 05	2.7717E 05	
13	49.52	30.16	131.3	155.3	1.801E+05	155.6	155.6	1.802E+05	155.3	2.8791E 05	2.8739E 05	
14	49.52	30.16	131.3	156.8	1.862E+05	157.2	157.2	1.862E+05	156.9	3.0591E 05	3.0535E 05	
15	49.52	30.16	131.4	158.0	1.907E+05	158.4	158.4	1.908E+05	158.0	3.1875E 05	3.1819E 05	
				159.6	1.972E+05	160.0	160.0	1.973E+05	159.6	3.3701E 05	3.3590E 05	
16	49.52	30.16	131.5									
17	49.52	30.16	131.7	163.4	2.135E+05	163.9	163.9	2.137E+05	163.4	3.8097E 05	3.7925E 05	
18	49.52	30.16	132.0	168.1	2.353E+05	168.7	168.8	2.356E+05	168.1	4.3514E 05	4.3295E 05	
19	49.53	30.16	132.3	174.3	2.673E+05	175.2	175.2	2.676E+05	174.3	5.0716E 05	5.0476E 05	
20	50.79 48.56	35.42 29.65	131.4	181.0	3.054E+05	182.1	181.1	2.994E+05	180.0	5.8424E 05	6.0747E 05	

MESH POINTS 14 TO 98 HAVE BEEN OMITTED

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-TIME 3 DAYS FLAKEING ON PL18

3/08/67

MESH POINT = 99

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	44.85 56.13	67.35 66.97	148.4									
2	48.28	67.33	180.9	239.0	1.006E+04	277.0	280.5	1.480E+04	268.9	1.4813E 06	1.2247E 06	*
3	48.27	67.34	178.6	271.0	1.500E+04	283.1	282.7	1.490E+04	270.6	1.2543E 06	1.2713E 06	*
4	48.20	67.35	175.1	262.6	1.312E+04	272.3	271.8	1.300E+04	261.9	1.1603E 06	1.1849E 06	*
5	48.14	67.37	171.5	253.5	1.146E+04	261.4	260.8	1.137E+04	252.9	1.0698E 06	1.0950E 06	*
				244.6	1.011E+04	250.9	250.6	1.005E+04	244.1	9.8337E 05	1.0010E 06	*
6	47.96	67.21	168.9									*
7	47.94	67.21	167.5	239.7	9.347E-05	245.3	245.1	9.309E+05	239.4	9.4161E 05	9.5259E 05	*
8	47.92	67.21	166.8	236.7	8.904E+05	242.0	241.8	8.886E+05	236.6	9.1728E 05	9.2280E 05	*
9	47.92	67.21	166.6	235.6	8.746E+05	240.7	240.7	8.742E+05	235.6	9.1032E 05	9.1172E 05	*
10	47.92	67.21	166.9	235.7	8.750E+05	240.8	240.8	8.760E+05	235.7	9.1247E 05	9.0957E 05	*
				237.6	9.035E+05	243.0	243.2	9.068E+05	237.8	9.3399E 05	9.2413E 05	*
11	47.93	67.21	166.2									*
12	47.94	67.21	169.8	242.1	9.728E+05	248.2	248.4	9.772E+05	242.4	9.8025E 05	9.6807E 05	*
13	47.97	67.21	171.7	246.1	1.039E+04	252.8	253.1	1.044E+04	246.4	1.0173E 06	1.0032E 06	*
14	48.14	67.37	173.9	252.1	1.146E+04	260.1	260.3	1.152E+04	252.5	1.0800E 06	1.0667E 06	*
15	48.17	67.36	176.1	256.9	1.236E+04	265.8	266.1	1.243E+04	257.3	1.1264E 06	1.1105E 06	*
				263.6	1.376E+04	274.2	274.8	1.392E+04	264.4	1.1974E 06	1.1658E 06	*
16	48.21	67.35	180.5									*
17	48.29	67.33	187.3	278.5	1.730E+04	293.6	294.7	1.763E+04	279.9	1.3614E 06	1.3085E 06	*
18	48.41	67.30	196.1	297.3	2.278E+04	320.0	321.3	2.325E+04	299.0	1.5543E 06	1.4945E 06	*
19	48.51	67.27	206.2	320.8	3.862E+04	365.6	367.1	3.950E+04	322.9	1.8111E 06	1.7428E 06	*
20	50.23 44.85	66.95 67.35	184.5	341.7	4.142E+04	395.4	389.6	3.850E+04	336.3	2.0233E 06	2.1620E 06	*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20*TIME 3 DAYS FLAKEING ON PL18

3/08/67

MESH POINT = 103

DX = 0,02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	44,59 56,20	68,51 68,21	149,2									
2	48,08	68,46	183,3	260,7	1,308E+04	273,2	282,3	1,518E+04	270,5	1,4896E 06	1,2164E 06	
3	48,06	68,46	180,9	273,2	1,551E+04	285,6	285,2	1,540E+04	272,7	1,2535E 06	1,2721E 06	
4	48,00	68,48	177,3	264,5	1,355E+04	274,6	274,0	1,342E+04	263,8	1,1592E 06	1,1860E 06	
5	47,93	68,50	173,5	255,3	1,181E+04	263,4	262,8	1,171E+04	254,6	1,0690E 06	1,0958E 06	
				246,3	1,041E+04	252,8	252,5	1,0356E+04	245,8	9,8312E 05	1,0013E 06	
6	47,75	68,34	170,8									
7	47,72	68,34	169,3	241,3	9,621E+05	247,1	246,9	9,581E+05	241,1	9,4151E 05	9,5269E 05	
8	47,71	68,34	168,5	238,4	9,163E+05	243,8	243,6	9,143E+05	238,2	9,1713E 05	9,2295E 05	
9	47,71	68,34	168,3	237,3	8,998E+05	242,5	242,5	8,993E+05	237,2	9,1028E 05	9,1176E 05	
10	47,71	68,34	168,7	237,3	9,002E+05	242,6	242,6	9,013E+05	237,4	9,1255E 05	9,0949E 05	
				239,3	9,299E+05	244,8	245,0	9,334E+05	239,5	9,3425E 05	9,2387E 05	
11	47,72	68,34	170,0									
12	47,73	68,34	171,7	243,7	1,001E+04	250,0	250,3	1,006E+04	241,0	9,0013E 05	9,0819E 05	
13	47,75	68,34	173,7	247,7	1,069E+04	254,7	254,0	1,070E+04	248,1	1,0177E 06	1,0028E 06	
14	47,92	68,51	176,0	253,9	1,181E+04	262,1	262,4	1,187E+04	254,2	1,0895E 06	1,0440E 06	
15	47,96	68,50	170,3	258,7	1,275E+04	267,9	268,3	1,283E+04	259,1	1,1269E 06	1,1100E 06	
				265,6	1,423E+04	276,5	277,3	1,441E+04	266,5	1,1991E 06	1,1641E 06	
16	48,01	68,48	182,9									
17	48,04	68,46	190,0	280,8	1,792E+04	296,5	297,6	1,827E+04	282,3	1,3629E 06	1,3070E 06	
18	48,20	68,42	199,0	299,8	2,363E+04	323,3	324,5	2,415E+04	301,4	1,3538E 06	1,4950E 06	
19	48,31	68,39	210,0	307,8	4,041E+04	348,9	341,1	1,000E+06	340,9	1,3886E 06	1,9653E 06	
20	52,81 44,59	69,66 68,51	165,8	342,2	4,170E+04	395,3	386,2	3,721E+04	333,7	1,9842E 06	2,2011E 06	

ATH NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20*TIME 3 DAYS FLAKEING ON PL18

3/08/67

MESH POINT = 107

DX = 0,02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	44,54 56,21	70,24 69,81	150,4									
2	48,12	70,16	186,4	261,6	1,328E+04	274,4	284,0	1,555E+04	272,0	1,4930E 06	1,2034E 06	
3	48,11	70,16	184,0	275,2	1,602E+04	288,1	287,7	1,590E+04	274,7	1,2486E 06	1,2600E 06	
4	48,04	70,19	186,1	266,5	1,398E+04	276,8	276,2	1,383E+04	265,7	1,1530E 06	1,1838E 06	
5	47,97	70,21	176,2	257,0	1,216E+04	265,3	264,7	1,204E+04	256,3	1,0639E 06	1,0932E 06	
				247,9	1,070E+04	254,6	254,2	1,063E+04	247,4	9,7872E 05	9,9861E 05	
6	47,79	70,04	173,2									
7	47,76	70,04	171,6	242,9	9,877E+05	248,8	248,6	9,833E+05	242,6	9,3788E 05	9,4957E 05	
8	47,75	70,04	170,8	239,9	9,406E+05	245,4	245,3	9,385E+05	239,8	9,1383E 05	9,1970E 05	
9	47,74	70,04	170,6	238,8	9,237E+05	244,2	244,2	9,231E+05	238,8	9,0703E 05	9,0852E 05	
10	47,75	70,04	171,1	238,8	9,241E+05	244,2	244,3	9,252E+05	238,9	9,0932E 05	9,0623E 05	
				240,8	9,544E+05	246,5	246,7	9,582E+05	241,0	9,3099E 05	9,2051E 05	
11	47,75	70,04	172,5									
12	47,77	70,04	174,2	245,3	1,028E+04	251,7	252,0	1,033E+04	245,6	9,7718E 05	9,6419E 05	
13	47,79	70,04	176,4	249,3	1,098E+04	256,5	256,8	1,105E+04	249,7	1,0148E 06	9,9852E 05	
14	47,96	70,21	178,8	255,5	1,214E+04	263,9	264,2	1,221E+04	255,9	1,0774E 06	1,0617E 06	
15	48,00	70,20	181,3	260,5	1,314E+04	269,9	270,3	1,323E+04	261,0	1,1241E 06	1,1049E 06	
				267,6	1,469E+04	278,9	279,7	1,490E+04	268,6	1,1969E 06	1,1580E 06	
16	48,05	70,19	186,1									
17	48,14	70,16	193,6	282,9	1,850E+04	299,0	300,2	1,886E+04	284,4	1,3581E 06	1,3025E 06	
18	48,25	70,11	202,9	301,8	2,440E+04	326,1	327,4	2,502E+04	303,6	1,5518E 06	1,4861E 06	
19	48,37	70,08	215,0	311,9	3,591E+04	348,9	342,2	1,000E+06	342,1	1,6086E 06	1,9326E 06	
20	51,50 44,54	69,96 70,24	167,4	345,5	4,347E+04	400,8	392,4	3,916E+04	337,6	1,9847E 06	2,1857E 06	

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-TIME 3 DAYS FLAKEING ON PL18

3/08/67

MESH POINT = 111

DX = 0,02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	U / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	44,27 56,10	71,81 71,30	151,6	262,8	1,351E-04	275,7	285,9	1,595E-04	273,0	1,4947E 06	1,1881E 06	*
2	47,90	71,67	189,5	277,6	1,660E-04	290,8	290,4	1,647E-04	277,1	1,2420E 06	1,2620E 06	*
3	47,90	71,68	187,1	268,8	1,449E-04	279,5	278,8	1,432E-04	267,9	1,1461E 06	1,1790E 06	*
4	47,82	71,71	183,0	259,1	1,258E-04	267,6	267,0	1,244E-04	258,3	1,0566E 06	1,0897E 06	*
5	47,75	71,74	178,8	249,8	1,104E-04	256,6	256,2	1,096E-04	249,2	9,1292E 05	9,9451E 05	*
6	47,56	71,56	175,7	244,6	1,018E-04	250,7	250,5	1,013E-04	244,3	9,3270E 05	9,4530E 05	*
7	47,54	71,56	174,0	241,6	9,684E-05	247,3	247,1	9,661E-05	241,5	9,0901E 05	9,1533E 05	*
8	47,52	71,57	173,2	240,5	9,507E-05	246,0	246,0	9,501E-05	240,5	9,0243E 05	9,0402E 05	*
9	47,52	71,57	173,0	240,5	9,512E-05	246,0	246,1	9,524E-05	240,6	9,0489E 05	9,0156E 05	*
10	47,52	71,57	173,4	242,5	9,827E-05	248,3	248,6	9,869E-05	242,8	9,2675E 05	9,1548E 05	*
11	47,53	71,56	174,9	247,0	1,059E-04	253,6	253,9	1,064E-04	247,4	9,7283E 05	9,5883E 05	*
12	47,54	71,56	176,7	251,2	1,133E-04	258,5	258,9	1,141E-04	251,6	1,0104E 06	9,9284E 05	*
13	47,57	71,56	179,0	257,5	1,254E-04	266,1	266,5	1,263E-04	257,9	1,0732E 06	1,0552E 06	*
14	47,74	71,74	181,5	262,6	1,360E-04	272,4	272,8	1,371E-04	263,2	1,1196E 06	1,0982E 06	*
15	47,78	71,73	184,2	269,9	1,523E-04	281,6	282,4	1,545E-04	271,0	1,1923E 06	1,1507E 06	*
16	47,83	71,71	189,3	285,3	1,916E-04	301,9	303,1	1,955E-04	286,8	1,3516E 06	1,2955E 06	*
17	47,92	71,67	197,2	304,3	2,531E-04	329,4	336,9	2,603E-04	306,3	1,5470E 06	1,4751E 06	*
18	48,64	71,62	206,9	315,1	3,543E-04	351,6	345,1	1,000E-06	345,0	1,6061E 06	1,9174E 06	*
19	48,17	71,59	219,9	347,7	4,466E-04	403,7	394,1	3,960E-04	338,5	1,9587E 06	2,1908E 06	*
20	51,83 44,27	71,34 71,81	169,0									*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-TIME 3 DAYS FLAKEING ON PL18

3/08/67

MESH POINT = 115

DX = 0,02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	U / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	43,99 55,96	73,37 72,78	152,8	263,5	1,363E-04	276,5	287,2	1,622E-04	275,0	1,4903E 06	1,1694E 06	*
2	47,64	73,14	192,6	279,5	1,704E-04	292,9	292,6	1,692E-04	279,0	1,2324E 06	1,2501E 06	*
3	47,68	73,19	190,1	270,8	1,492E-04	281,7	280,9	1,474E-04	269,9	1,1351E 06	1,1700E 06	*
4	47,60	73,22	185,8	261,0	1,293E-04	269,7	268,9	1,278E-04	260,0	1,0459E 06	1,0819E 06	*
5	47,53	73,26	181,4	251,4	1,133E-04	258,4	257,9	1,124E-04	250,8	9,6324E 05	9,8724E 05	*
6	47,34	73,07	178,2	246,2	1,043E-04	252,3	252,1	1,037E-04	245,8	9,2414E 05	9,3769E 05	*
7	47,31	73,08	176,4	243,1	9,915E-05	248,8	248,7	9,889E-05	242,9	9,0092E 05	9,0771E 05	*
8	47,30	73,08	175,9	242,0	9,729E-05	247,5	247,5	9,723E-05	241,9	8,9459E 05	8,9630E 05	*
9	47,30	73,08	175,3	242,0	9,735E-05	247,6	247,7	9,748E-05	242,1	8,9724E 05	8,9660E 05	*
10	47,30	73,08	175,7	244,0	1,006E-04	249,9	250,1	1,011E-04	244,3	9,1922E 05	9,0714E 05	*
11	47,31	73,08	177,3	248,5	1,085E-04	255,3	255,6	1,091E-04	248,9	9,6503E 05	9,4999E 05	*
12	47,32	73,08	179,2	252,8	1,163E-04	260,3	260,7	1,171E-04	253,3	1,0028E 06	9,8316E 05	*
13	47,35	73,07	181,7	259,3	1,289E-04	268,1	268,5	1,298E-04	259,8	1,0649E 06	1,0451E 06	*
14	47,52	73,26	184,3	264,5	1,390E-04	274,5	274,9	1,410E-04	265,1	1,1104E 06	1,0880E 06	*
15	47,56	73,24	187,1	271,9	1,565E-04	283,7	284,6	1,589E-04	273,0	1,1822E 06	1,1406E 06	*
16	47,62	73,22	192,4	287,2	1,969E-04	304,2	305,4	2,013E-04	288,9	1,3424E 06	1,2819E 06	*
17	47,71	73,18	200,8	306,4	2,609E-04	332,1	333,8	2,689E-04	308,6	1,5373E 06	1,4593E 06	*
18	47,83	73,12	210,8	317,4	3,661E-04	354,8	346,3	1,000E-06	348,2	1,5910E 06	1,9022E 06	*
19	47,97	73,09	224,8	349,4	4,544E-04	405,4	394,1	3,950E-04	338,6	1,9213E 06	2,1924E 06	*
20	52,32 43,99	72,83 73,37	170,6									*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-TIME 3 DAYS FLAKEING ON PL18

3/08/67

MESH POINT = 116

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	43.98 56.12	73.79 73.29	153.1									
2	47.70	73.59	193.4	263.4	1.364E+04	276.4	287.3	1.628E+04	275.1	1.4897E 06	1.1633E 06	*
3	47.69	73.60	190.9	279.8	1.715E+04	293.3	292.9	1.703E+04	279.3	1.2291E 06	1.2470E 06	*
4	47.62	73.64	186.5	271.2	1.502E+04	282.1	281.3	1.484E+04	270.2	1.1323E 06	1.1669E 06	*
5	47.54	73.67	182.1	261.3	1.303E+04	270.1	269.3	1.287E+04	260.4	1.0429E 06	1.0795E 06	*
				251.7	1.141E+04	258.8	258.3	1.132E+04	251.1	9.6838E 05	9.8519E 05	*
6	47.35	73.49	178.8									*
7	47.32	73.49	177.0	246.4	1.050E+04	252.6	252.4	1.045E+04	246.1	9.2165E 05	9.3545E 05	*
8	47.31	73.50	176.1	243.4	9.982E+05	249.1	249.0	9.956E+05	243.2	8.9850E 05	9.0540E 05	*
9	47.31	73.50	175.8	242.2	9.794E+05	247.8	247.8	9.787E+05	242.2	8.9230E 05	8.9404E 05	*
10	47.31	73.50	176.3	242.3	9.800E+05	247.9	247.9	9.813E+05	242.3	8.9500E 05	8.9135E 05	*
				244.2	1.013E+04	250.2	250.5	1.018E+04	244.6	9.1701E 05	9.0471E 05	*
11	47.32	73.49	177.9									*
12	47.33	73.49	179.9	248.8	1.092E+04	255.6	255.4	1.099E+04	249.2	9.6274E 05	9.4742E 05	*
13	47.36	73.48	182.3	253.1	1.171E+04	260.6	261.0	1.180E+04	253.6	1.0006E 06	9.8031E 05	*
14	47.53	73.67	185.0	259.6	1.299E+04	268.4	268.9	1.308E+04	260.1	1.6624E 06	1.0423E 06	*
15	47.57	73.66	187.8	264.9	1.411E+04	274.9	275.4	1.421E+04	265.5	1.1082E 06	1.0850E 06	*
				272.2	1.577E+04	284.2	285.0	1.601E+04	273.3	1.1792E 06	1.1377E 06	*
16	47.63	73.63	193.2									*
17	47.72	73.59	201.7	287.6	1.984E+04	304.6	305.9	2.029E+04	289.3	1.3399E 06	1.2777E 06	*
18	47.84	73.54	211.7	308.9	2.831E+04	332.7	334.4	2.713E+04	309.1	1.5338E 06	1.4552E 06	*
19	47.99	73.50	226.0	317.8	3.693E+04	355.4	348.9	1.000E+06	348.0	1.5067E 06	1.8976E 06	*
20	52.54	73.27	171.0	349.7	4.569E+04	405.7	394.0	3.952E+04	338.4	1.9112E 06	2.1921E 06	*
	43.98	73.79										*

ATR NOM HOT ASSEMBLY-TAPERED CHANNEL NO 20-TIME 3 DAYS FLAKEING ON PL18

3/08/67

MESH POINT = 117

DX = 0.00010 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	43.94 54.95	72.64 72.43	153.1									
2	46.06	72.59	193.4	265.4	1.409E+04	278.9	289.9	1.683E+04	277.3	1.4916E 06	1.1614E 06	*
3	46.04	72.59	190.9	282.3	1.780E+04	296.3	295.9	1.768E+04	281.8	1.2295E 06	1.2466E 06	*
4	45.93	72.61	186.5	273.5	1.558E+04	284.8	284.1	1.540E+04	272.6	1.1331E 06	1.1661E 06	*
5	45.81	72.62	182.1	263.6	1.351E+04	272.6	271.9	1.335E+04	262.7	1.0437E 06	1.0786E 06	*
				253.8	1.181E+04	261.1	260.6	1.171E+04	253.2	9.6010E 05	9.8541E 05	*
6	45.74	72.50	178.8									*
7	45.70	72.50	177.0	248.4	1.084E+04	254.8	254.5	1.079E+04	248.0	9.2193E 05	9.3514E 05	*
8	45.68	72.50	176.1	245.3	1.030E+04	251.2	251.1	1.028E+04	245.1	8.9870E 05	9.0532E 05	*
9	45.67	72.50	175.8	244.1	1.011E+04	249.9	249.9	1.010E+04	244.1	8.9233E 05	8.9400E 05	*
10	45.68	72.50	176.3	244.1	1.012E+04	249.9	250.0	1.013E+04	244.2	8.9493E 05	8.9140E 05	*
				246.2	1.046E+04	252.3	252.6	1.051E+04	246.5	9.1679E 05	9.0491E 05	*
11	45.69	72.50	177.9									*
12	45.71	72.50	179.9	250.8	1.129E+04	257.8	258.1	1.135E+04	251.2	9.6246E 05	9.4768E 05	*
13	45.75	72.50	182.3	255.2	1.211E+04	262.9	263.3	1.220E+04	255.7	1.0002E 06	9.8067E 05	*
14	45.81	72.62	185.0	261.8	1.345E+04	271.0	271.4	1.356E+04	262.3	1.0629E 06	1.0418E 06	*
15	45.86	72.61	187.8	267.2	1.463E+04	277.6	278.1	1.475E+04	267.8	1.1077E 06	1.0854E 06	*
				274.7	1.638E+04	287.0	287.9	1.661E+04	275.7	1.1783E 06	1.1386E 06	*
16	45.94	72.60	193.2									*
17	46.08	72.59	201.7	290.2	2.063E+04	367.9	309.2	2.108E+04	291.9	1.3385E 06	1.2791E 06	*
18	46.37	72.63	211.7	309.7	2.736E+04	336.5	336.0	2.815E+04	311.7	1.5310E 06	1.4580E 06	*
19	46.54	72.61	226.0	334.7	3.637E+04	378.8	381.0	3.956E+04	338.1	1.7937E 06	1.6905E 06	*
20	68.41	85.91	171.0	341.5	4.124E+04	387.6	361.8	2.957E+04	317.0	1.7419E 06	2.3613E 06	*
	41.94	72.64										*

MESH POINTS 118 TO 203 HAVE BEEN OMITTED

ATR NOM HOT ASSEMBLY-CONTINUED FROM FLAKEING

3/08/67

FLOATING POINT SINGLE VALUE ARRAY

4,5000E-01	-0,	2,5100E-01	2,5100E-01	3,0000E-02	1,5000E-02	4,0000E-02	2,0000E-02
0,	0,	1,3000E-02	1,0000E-02	1,0154E-02	4,5000E-01	4,5000E-01	5,0000E-01
5,0000E-01	7,0000E-01	7,0000E-01	1,0000E-00	9,0200E-04	1,2000E-03	1,2000E-03	1,0000E-00
5,0000E-03	1,5600E-01	4,4300E-02	8,2900E-03	7,7800E-01	7,2000E-01		

HORIZONTAL PEAKING

1,50	1,40	1,30	1,20	1,10	1,05	1,02	1,01	1,01	1,03	1,06	1,12	1,19	1,24
1,31	1,48	1,69	1,97	2,32									

PLATE NO. 1
VP PROFILE

FLOFED= 101,53725 LBS./SEC, AVEPL= 100,00012

ATR NOM HOT ASSEMBLY-CONTINUED FROM FLAKEING

3/08/67

MESH POINT - 1

DX = 0,00000 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	YBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	48,67 52,93	23,59 27,90	130,0									
2	49,51	24,40	130,0	130,0	1,016E-05	130,0	130,0	1,016E-05	130,0	0,	0,	
3	49,51	24,40	130,0	130,0	1,016E-05	130,0	130,0	1,016E-05	130,0	0,	0,	
4	49,51	24,40	130,0	130,0	1,016E-05	130,0	130,0	1,016E-05	130,0	0,	0,	
5	49,50	24,40	130,0	130,0	1,016E-05	130,0	130,0	1,016E-05	130,0	0,	0,	
6	49,50	24,40	130,0	130,0	1,016E-05	130,0	130,0	1,016E-05	130,0	0,	0,	
7	49,50	24,40	130,0	130,0	1,016E-05	130,0	130,0	1,016E-05	130,0	0,	0,	
8	49,50	24,40	130,0	130,0	1,016E-05	130,0	130,0	1,016E-05	130,0	0,	0,	
9	49,50	24,40	130,0	130,0	1,016E-05	130,0	130,0	1,016E-05	130,0	0,	0,	
10	49,50	24,40	130,0	130,0	1,016E-05	130,0	130,0	1,016E-05	130,0	0,	0,	
11	49,50	24,40	130,0	130,0	1,016E-05	130,0	130,0	1,016E-05	130,0	0,	0,	
12	49,50	24,40	130,0	130,0	1,016E-05	130,0	130,0	1,016E-05	130,0	0,	0,	
13	49,50	24,40	130,0	130,0	1,016E-05	130,0	130,0	1,016E-05	130,0	0,	0,	
14	49,50	24,40	130,0	130,0	1,016E-05	130,0	130,0	1,016E-05	130,0	0,	0,	
15	49,51	24,40	130,0	130,0	1,016E-05	130,0	130,0	1,016E-05	130,0	0,	0,	
16	49,51	24,40	130,0	130,0	1,016E-05	130,0	130,0	1,016E-05	130,0	0,	0,	
17	49,51	24,40	130,0	130,0	1,016E-05	130,0	130,0	1,016E-05	130,0	0,	0,	
18	49,51	24,40	130,0	130,0	1,016E-05	130,0	130,0	1,016E-05	130,0	0,	0,	
19	49,51	24,40	130,0	130,0	1,016E-05	130,0	130,0	1,016E-05	130,0	0,	0,	
20	55,65 48,67	30,84 23,59	130,0									

ATR NOM HOT ASSEMBLY-CONTINUED FROM FLAKEING

3/08/67

MESH POINT = 5

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	VBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDOW
1	48.64 52.93	25.61 29.37	130.0	150.1	1.601E+05	150.4	150.3	1.600E+05	150.1	2.3603E 05	2.3730E 05	
2	49.51	26.32	130.1	148.7	1.543E+05	148.9	148.9	1.543E+05	148.7	2.2085E 05	2.2093E 05	
3	49.51	26.32	130.1	147.4	1.499E+05	147.6	147.5	1.499E+05	147.4	2.0507E 05	2.0515E 05	
4	49.51	26.32	130.1	146.0	1.459E+05	146.2	146.2	1.459E+05	146.0	1.8929E 05	1.8938E 05	
5	49.51	26.32	130.1	144.7	1.423E+05	144.8	144.8	1.423E+05	144.7	1.7353E 05	1.7359E 05	
6	49.51	26.32	130.1	144.0	1.402E+05	144.2	144.2	1.402E+05	144.0	1.6565E 05	1.6569E 05	
7	49.51	26.32	130.1	143.6	1.390E+05	143.8	143.8	1.390E+05	143.6	1.6093E 05	1.6094E 05	
8	49.51	26.32	130.1	143.5	1.386E+05	143.6	143.6	1.386E+05	143.5	1.5936E 05	1.5936E 05	
9	49.51	26.32	130.1	143.5	1.386E+05	143.6	143.6	1.386E+05	143.5	1.5936E 05	1.5939E 05	
10	49.51	26.32	130.1	143.8	1.394E+05	143.9	143.9	1.394E+05	143.8	1.6253E 05	1.6250E 05	
11	49.51	26.32	130.1	144.4	1.414E+05	144.6	144.6	1.414E+05	144.4	1.7042E 05	1.7038E 05	
12	49.51	26.32	130.1	145.0	1.431E+05	145.1	145.1	1.431E+05	145.0	1.7674E 05	1.7669E 05	
13	49.51	26.32	130.1	145.9	1.461E+05	146.1	146.1	1.461E+05	145.9	1.8778E 05	1.8773E 05	
14	49.51	26.32	130.1	146.6	1.482E+05	146.7	146.7	1.482E+05	146.6	1.9567E 05	1.9562E 05	
15	49.51	26.32	130.1	147.5	1.512E+05	147.7	147.7	1.513E+05	147.5	2.0674E 05	2.0664E 05	
16	49.51	26.32	130.1	149.8	1.589E+05	150.0	150.0	1.509E+05	149.0	2.3359E 05	2.3344E 05	
17	49.51	26.32	130.1	152.6	1.687E+05	152.8	152.8	1.688E+05	152.6	2.6674E 05	2.6659E 05	
18	49.51	26.32	130.2	156.3	1.828E+05	156.7	156.7	1.828E+05	156.3	3.1093E 05	3.1072E 05	
19	49.51	26.32	130.2	159.9	1.970E+05	160.3	159.2	1.926E+05	158.8	3.5327E 05	3.7882E 05	
20	48.64 52.93	25.61 29.37	130.1									

ATR NOM HOT ASSEMBLY-CONTINUED FROM FLAKEING

3/08/67

MESH POINT = 9

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	VBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDOW
1	48.64 52.94	27.64 30.83	130.3	156.7	1.851E+05	157.1	157.1	1.853E+05	156.8	3.1157E 05	3.1034E 05	
2	49.51	28.24	130.6	155.1	1.773E+05	155.4	155.4	1.773E+05	155.1	2.8999E 05	2.9046E 05	
3	49.51	28.24	130.7	153.3	1.707E+05	153.6	153.6	1.706E+05	153.3	2.6927E 05	2.6972E 05	
4	49.51	28.24	130.7	151.5	1.647E+05	151.8	151.8	1.646E+05	151.5	2.4853E 05	2.4900E 05	
5	49.51	28.24	130.6	149.7	1.593E+05	150.0	149.9	1.592E+05	149.7	2.2786E 05	2.2821E 05	
6	49.51	28.24	130.6	148.8	1.562E+05	149.0	149.0	1.562E+05	148.8	2.1758E 05	2.1776E 05	
7	49.51	28.24	130.6	148.3	1.544E+05	148.5	148.5	1.544E+05	148.3	2.1140E 05	2.1150E 05	
8	49.51	28.24	130.5	148.1	1.538E+05	148.3	148.3	1.538E+05	148.1	2.0936E 05	2.0939E 05	
9	49.51	28.24	130.5	148.1	1.538E+05	148.3	148.3	1.538E+05	148.1	2.0940E 05	2.0935E 05	
10	49.51	28.24	130.5	148.5	1.550E+05	148.7	148.7	1.550E+05	148.5	2.1361E 05	2.1344E 05	
11	49.51	28.24	130.6	149.3	1.580E+05	149.6	149.6	1.580E+05	149.4	2.2399E 05	2.2379E 05	
12	49.51	28.24	130.6	150.1	1.605E+05	150.3	150.3	1.605E+05	150.1	2.3231E 05	2.3205E 05	
13	49.51	28.24	130.6	151.3	1.648E+05	151.6	151.6	1.649E+05	151.3	2.4683E 05	2.4655E 05	
14	49.51	28.24	130.7	152.2	1.681E+05	152.5	152.5	1.681E+05	152.2	2.5719E 05	2.5692E 05	
15	49.51	28.24	130.7	153.5	1.727E+05	153.3	153.8	1.727E+05	153.5	2.7184E 05	2.7129E 05	
16	49.51	28.24	130.8	156.5	1.842E+05	156.9	156.9	1.842E+05	156.5	3.0724E 05	3.0638E 05	
17	49.51	28.24	130.9	160.2	1.993E+05	160.7	160.7	1.994E+05	160.3	3.7089E 05	3.4979E 05	
18	49.52	28.24	131.0	165.2	2.212E+05	165.8	165.8	2.213E+05	165.2	4.0898E 05	4.0779E 05	
19	49.52	28.24	131.1	170.3	2.453E+05	171.0	169.9	2.397E+05	169.1	4.6778E 05	4.9410E 05	
20	52.31 48.60	34.03 27.64	130.7									

ATR NOM HOT ASSEMBLY-CONTINUED FROM FLAKEING

3/08/67

MESH POINT = 13

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDOW
1	48.56 52.94	29.65 32.30	130.6	163.4	2.138E+05	164.0	164.1	2.144E+05	163.6	3.8743E 05	3.8307E 05	
2	49.52	30.16	131.6	161.6	2.038E+05	162.0	162.0	2.037E+05	161.6	3.5911E 05	3.6002E 05	
3	49.52	30.16	131.5	159.3	1.944E+05	159.8	159.7	1.943E+05	159.3	3.3343E 05	3.3433E 05	
4	49.52	30.16	131.4	157.1	1.859E+05	157.5	157.4	1.859E+05	157.1	3.0773E 05	3.0867E 05	
5	49.52	30.16	131.3	154.9	1.784E+05	155.2	155.2	1.784E+05	154.8	2.8216E 05	2.8287E 05	
6	49.52	30.16	131.2	153.7	1.742E+05	154.0	154.0	1.742E+05	153.7	2.6949E 05	2.6986E 05	
7	49.52	30.16	131.1	153.0	1.717E+05	153.3	153.3	1.717E+05	153.0	2.6187E 05	2.6206E 05	
8	49.52	30.16	131.1	152.8	1.708E+05	153.1	153.1	1.708E+05	152.8	2.5938E 05	2.5942E 05	
9	49.52	30.16	131.1	152.8	1.709E+05	153.1	153.1	1.709E+05	152.8	2.5945E 05	2.5935E 05	
10	49.52	30.16	131.1	153.3	1.725E+05	153.6	153.6	1.725E+05	153.3	2.6471E 05	2.6437E 05	
11	49.52	30.16	131.2	154.4	1.767E+05	154.7	154.7	1.767E+05	154.4	2.7758E 05	2.7717E 05	
12	49.52	30.16	131.2	155.3	1.801E+05	155.6	155.6	1.802E+05	155.3	2.8791E 05	2.8739E 05	
13	49.52	30.16	131.3	156.8	1.862E+05	157.2	157.2	1.862E+05	156.9	3.0592E 05	3.0535E 05	
14	49.52	30.16	131.3	158.0	1.907E+05	158.4	158.4	1.908E+05	158.0	3.1875E 05	3.1819E 05	
15	49.52	30.16	131.4	159.6	1.972E+05	160.0	160.0	1.973E+05	159.6	3.3701E 05	3.3590E 05	
16	49.52	30.16	131.5	163.4	2.135E+05	163.9	163.9	2.137E+05	163.4	3.8097E 05	3.7925E 05	
17	49.52	30.16	131.7	168.1	2.353E+05	168.7	168.8	2.356E+05	168.1	4.3514E 05	4.3295E 05	
18	49.52	30.16	132.0	174.3	2.673E+05	175.2	175.2	2.676E+05	174.3	5.0716E 05	5.0476E 05	
19	49.53	30.16	132.3	181.0	3.054E+05	182.1	181.1	2.994E+05	180.0	5.8424E 05	6.0747E 05	
20	50.79 48.56	35.42 29.65	131.4									

MESH POINTS 14 TO 98 HAVE BEEN OMITTED

ATR NOM HOT ASSEMBLY-CONTINUED FROM FLAKEING

3/08/67

MESH POINT = 99

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDOW
1	44.89 56.13	67.35 66.97	148.4	259.8	1.286E+04	272.0	280.5	1.480E+04	268.9	1.4813E 06	1.0217E 06	
2	48.28	67.33	180.9	271.0	1.500E+04	283.1	282.7	1.490E+04	270.6	1.2543E 06	1.2713E 06	
3	48.27	67.34	178.6	262.6	1.312E+04	272.3	271.8	1.300E+04	261.9	1.1603E 06	1.1849E 06	
4	48.20	67.35	175.1	253.5	1.146E+04	261.4	260.8	1.137E+04	252.9	1.0698E 06	1.0950E 06	
5	48.14	67.37	171.5	244.6	1.011E+04	250.7	250.6	1.005E+04	244.1	9.8337E 05	1.0010E 06	
6	47.96	67.21	168.9	239.7	9.347E+05	245.3	245.1	9.309E+05	239.4	9.4161E 05	9.5259E 05	
7	47.94	67.21	167.5	236.7	8.904E+05	242.0	241.8	8.886E+05	236.6	9.1728E 05	9.2280E 05	
8	47.92	67.21	166.8	235.6	8.746E+05	240.7	240.7	8.742E+05	235.6	9.1032E 05	9.1172E 05	
9	47.92	67.21	166.6	235.7	8.750E+05	240.8	240.8	8.760E+05	235.7	9.1247E 05	9.0957E 05	
10	47.92	67.21	166.9	237.6	9.035E+05	243.0	243.2	9.068E+05	237.8	9.3399E 05	9.2413E 05	
11	47.93	67.21	168.2	242.1	9.728E+05	248.2	248.4	9.772E+05	242.4	9.8025E 05	9.6807E 05	
12	47.94	67.21	169.8	246.1	1.039E+04	252.8	253.1	1.044E+04	246.4	1.0173E 06	1.0032E 06	
13	47.97	67.21	171.7	252.1	1.146E+04	260.1	260.3	1.152E+04	252.5	1.0800E 06	1.0667E 06	
14	48.14	67.37	173.9	256.9	1.236E+04	265.8	266.1	1.243E+04	257.3	1.1264E 06	1.1105E 06	
15	48.17	67.36	176.1	263.6	1.376E+04	274.2	274.8	1.392E+04	264.4	1.1974E 06	1.1658E 06	
16	48.21	67.35	180.5	278.5	1.730E+04	293.6	294.7	1.763E+04	279.9	1.3614E 06	1.3085E 06	
17	48.29	67.33	187.3	297.3	2.278E+04	320.0	321.3	2.325E+04	299.0	1.5543E 06	1.4945E 06	
18	48.41	67.30	196.1	320.8	3.862E+04	365.6	367.1	3.950E+04	322.9	1.8111E 06	1.7428E 06	
19	48.51	67.27	206.2	341.7	4.142E+04	395.4	389.6	3.850E+04	336.3	2.0233E 06	2.1620E 06	
20	50.23 44.85	66.95 67.35	164.5									

ATR NOM HOT ASSEMBLY-CONTINUED FROM FLAKEING

3/08/67

MESH POINT = 103

DX = 0.02086 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDOW
1	44.59 56.20	68.51 68.21	149.2	260.7	1.308E-04	273.2	282.3	1.518E-04	270.5	1.4896E 06	1.2164E 06	
2	48.08	68.46	183.3	273.2	1.551E-04	285.6	285.2	1.540E-04	272.7	1.2535E 06	1.2721E 06	
3	48.06	68.46	180.9	264.5	1.355E-04	274.6	274.0	1.342E-04	263.8	1.1992E 06	1.1860E 06	
4	48.00	68.48	177.3	255.3	1.181E-04	263.4	262.8	1.171E-04	254.6	1.0690E 06	1.0958E 06	
5	47.93	68.50	173.5	246.3	1.041E-04	252.8	252.5	1.035E-04	245.8	9.8312E 05	1.0013E 06	
6	47.75	68.34	170.8	241.3	9.621E-05	247.1	246.9	9.581E-05	241.1	9.4151E 05	9.5269E 05	
7	47.72	68.34	169.3	238.4	7.163E-05	243.8	243.6	9.143E-05	238.2	9.1713E 05	9.2295E 05	
8	47.71	68.34	168.5	237.3	8.998E-05	242.5	242.5	8.993E-05	237.2	9.1028E 05	9.1176E 05	
9	47.71	68.34	168.3	237.3	9.002E-05	242.6	242.6	9.013E-05	237.4	9.1255E 05	9.0949E 05	
10	47.71	68.34	168.7	239.3	9.299E-05	244.8	245.0	9.334E-05	239.5	9.3425E 05	9.2387E 05	
11	47.72	68.34	170.0	243.7	1.001E-04	250.0	250.1	1.000E-04	244.0	9.8013E 05	9.6819E 05	
12	47.73	68.34	171.7	247.7	1.049E-04	254.7	255.0	1.075E-04	248.1	1.0177E 06	1.0028E 06	
13	47.73	68.33	173.7	253.9	1.181E-04	262.1	262.4	1.187E-04	254.2	1.0805E 06	1.0662E 06	
14	47.92	68.50	176.0	258.7	1.275E-04	267.9	268.3	1.283E-04	259.1	1.1269E 06	1.1100E 06	
15	47.96	68.50	178.3	265.6	1.423E-04	276.5	277.3	1.441E-04	266.5	1.1991E 06	1.1641E 06	
16	48.01	68.48	182.9	280.8	1.792E-04	296.5	297.6	1.827E-04	282.3	1.3629E 06	1.3070E 06	
17	48.09	68.46	190.0	299.8	2.363E-04	323.3	324.5	2.415E-04	301.4	1.5538E 06	1.4950E 06	
18	48.20	68.42	194.0	307.8	4.041E-04	348.9	341.1	1.000E-06	340.9	1.5886E 06	1.9653E 06	
19	48.31	68.39	210.0	342.2	4.170E-04	395.3	386.2	3.721E-04	333.7	1.9842E 06	2.2011E 06	
20	52.81 44.59	69.66 68.51	165.8									

ATR NOM HOT ASSEMBLY-CONTINUED FROM FLAKEING

3/08/67

MESH POINT = 107

DX = 0.02086 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDOW
1	44.54 56.21	70.24 69.81	150.4	261.6	1.328E-04	274.4	284.0	1.555E-04	272.0	1.4930E 06	1.2034E 06	
2	48.12	70.16	180.4	275.2	1.602E-04	288.1	287.7	1.590E-04	274.7	1.2486E 06	1.2680E 06	
3	48.11	70.16	184.0	266.5	1.398E-04	276.8	276.2	1.383E-04	265.7	1.1530E 06	1.1838E 06	
4	48.04	70.19	180.1	257.0	1.216E-04	265.3	264.7	1.204E-04	256.3	1.0639E 06	1.0932E 06	
5	47.97	70.21	176.2	247.9	1.070E-04	254.6	254.2	1.063E-04	247.4	9.7872E 05	9.9861E 05	
6	47.79	70.04	173.2	242.9	9.877E-05	248.8	248.6	9.833E-05	242.6	9.3788E 05	9.4957E 05	
7	47.76	70.04	171.6	239.9	9.466E-05	245.4	245.3	9.385E-05	239.8	9.1383E 05	9.1970E 05	
8	47.73	70.04	170.8	238.8	9.237E-05	244.2	244.2	9.231E-05	238.8	9.0703E 05	9.0852E 05	
9	47.74	70.04	170.6	238.8	9.241E-05	244.2	244.3	9.252E-05	238.9	9.0932E 05	9.0623E 05	
10	47.75	70.04	171.1	240.8	9.544E-05	246.5	246.7	9.582E-05	241.0	9.3099E 05	9.2051E 05	
11	47.75	70.04	172.5	245.3	1.028E-04	251.7	252.0	1.033E-04	245.6	9.7718E 05	9.6419E 05	
12	47.77	70.04	174.2	249.3	1.098E-04	256.5	256.8	1.105E-04	249.7	1.0148E 06	9.9852E 05	
13	47.79	70.04	176.4	255.5	1.214E-04	263.7	264.2	1.221E-04	255.9	1.0774E 06	1.0617E 06	
14	47.96	70.21	178.8	260.5	1.314E-04	269.9	270.3	1.323E-04	261.0	1.1241E 06	1.1049E 06	
15	48.00	70.20	181.3	267.6	1.469E-04	278.9	279.7	1.490E-04	268.6	1.1969E 06	1.1580E 06	
16	48.05	70.19	186.1	282.9	1.850E-04	299.0	300.2	1.886E-04	284.4	1.3581E 06	1.3023E 06	
17	48.14	70.16	193.6	301.8	2.440E-04	326.1	327.4	2.502E-04	303.6	1.5518E 06	1.4861E 06	
18	48.25	70.11	202.9	311.9	3.591E-04	348.9	342.2	1.000E-06	342.1	1.6086E 06	1.9326E 06	
19	48.37	70.06	215.0	345.5	4.347E-04	400.8	392.4	3.916E-04	337.6	1.9847E 06	2.1857E 06	
20	51.50 44.54	69.96 70.24	167.4									

ATR NOM HOT ASSEMBLY-CONTINUED FROM FLAKEING

3/08/67

MESH POINT = 111

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDOW
1	44.27 56.10	71.81 71.30	151.6	262.8	1.351E-04	275.7	285.9	1.595E-04	273.8	1.4947E 06	1.1881E 06	*
2	47.90	71.67	189.5	277.6	1.660E-04	290.8	290.4	1.647E-04	277.1	1.2420E 06	1.2620E 06	*
3	47.90	71.68	187.1	268.8	1.449E-04	279.5	278.8	1.432E-04	267.9	1.1461E 06	1.1790E 06	*
4	47.82	71.71	183.0	259.1	1.258E-04	267.6	267.0	1.244E-04	258.3	1.0566E 06	1.0897E 06	*
5	47.75	71.74	178.8	249.8	1.104E-04	256.6	256.2	1.096E-04	249.2	9.7292E 05	9.9451E 05	*
6	47.56	71.56	175.7	244.6	1.018E-04	250.7	250.5	1.013E-04	244.3	9.3270E 05	9.4530E 05	*
7	47.54	71.56	174.0	241.6	9.684E-05	247.3	247.1	9.661E-05	241.5	9.0901E 05	9.1533E 05	*
8	47.52	71.57	173.2	240.5	9.507E-05	246.0	246.0	9.501E-05	240.5	9.0243E 05	9.0402E 05	*
9	47.52	71.57	173.0	240.5	9.512E-05	246.0	246.1	9.524E-05	240.6	9.0489E 05	9.0156E 05	*
10	47.52	71.57	173.4	242.5	9.827E-05	248.3	248.6	9.869E-05	242.8	9.2675E 05	9.1548E 05	*
11	47.53	71.56	174.9	247.0	1.059E-04	253.6	253.9	1.064E-04	247.4	9.7283E 05	9.5883E 05	*
12	47.54	71.56	176.7	251.2	1.133E-04	258.5	258.9	1.141E-04	251.6	1.0104E 06	9.9284E 05	*
13	47.57	71.56	179.0	257.5	1.254E-04	266.1	266.5	1.263E-04	257.9	1.0732E 06	1.0552E 06	*
14	47.74	71.74	181.5	262.6	1.360E-04	272.4	272.8	1.371E-04	263.2	1.1196E 06	1.0982E 06	*
15	47.78	71.73	184.2	269.9	1.523E-04	281.6	282.4	1.545E-04	271.0	1.1923E 06	1.1507E 06	*
16	47.83	71.71	189.3	285.3	1.916E-04	301.9	303.1	1.955E-04	286.8	1.3516E 06	1.2955E 06	*
17	47.92	71.67	197.2	304.3	2.531E-04	329.4	330.9	2.603E-04	306.3	1.5476E 06	1.4751E 06	*
18	48.04	71.62	206.9	315.1	3.543E-04	351.6	345.1	1.000E-06	345.0	1.6061E 06	1.9174E 06	*
19	48.17	71.59	219.9	347.7	4.466E-04	403.7	394.1	3.960E-04	338.5	1.9587E 06	2.1908E 06	*
20	51.83 44.27	71.34 71.81	169.0									*

ATR NOM HOT ASSEMBLY-CONTINUED FROM FLAKEING

3/08/67

MESH POINT = 115

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDOW
1	43.99 55.96	73.37 72.78	152.8	243.5	1.361E-04	276.5	287.2	1.622E-04	275.0	1.4903E 06	1.1694E 06	*
2	47.69	73.18	192.6	279.5	1.704E-04	292.9	292.6	1.692E-04	279.0	1.2324E 06	1.2201E 06	*
3	47.68	73.19	190.1	270.8	1.492E-04	281.7	280.9	1.474E-04	269.9	1.1351E 06	1.1700E 06	*
4	47.60	73.22	185.8	261.0	1.293E-04	269.7	268.9	1.278E-04	260.0	1.0459E 06	1.0819E 06	*
5	47.53	73.26	181.4	251.4	1.133E-04	258.4	257.9	1.124E-04	250.8	9.6324E 05	9.8724E 05	*
6	47.34	73.07	178.2	246.2	1.043E-04	252.3	252.1	1.037E-04	245.8	9.2414E 05	9.3769E 05	*
7	47.31	73.08	176.4	243.1	9.915E-05	248.8	248.7	9.889E-05	242.9	9.0092E 05	9.0771E 05	*
8	47.30	73.08	175.5	242.0	9.729E-05	247.5	247.5	9.723E-05	241.9	8.9459E 05	8.9630E 05	*
9	47.30	73.08	175.3	242.0	9.735E-05	247.6	247.7	9.748E-05	242.1	8.9724E 05	8.9366E 05	*
10	47.30	73.08	175.7	244.0	1.006E-04	249.9	250.1	1.011E-04	244.3	9.1922E 05	9.0714E 05	*
11	47.31	73.08	177.3	248.5	1.085E-04	255.3	255.6	1.091E-04	248.9	9.6503E 05	9.4999E 05	*
12	47.32	73.08	179.2	252.8	1.163E-04	260.3	260.7	1.171E-04	253.3	1.0028E 06	9.8316E 05	*
13	47.35	73.07	181.7	259.3	1.289E-04	268.1	268.5	1.298E-04	259.8	1.0649E 06	1.0451E 06	*
14	47.52	73.26	184.3	264.5	1.399E-04	274.5	274.9	1.410E-04	265.1	1.1108E 06	1.0880E 06	*
15	47.56	73.24	187.1	271.9	1.565E-04	283.7	284.6	1.589E-04	273.0	1.1822E 06	1.1406E 06	*
16	47.62	73.22	192.4	287.2	1.969E-04	304.2	305.4	2.013E-04	288.9	1.3424E 06	1.2819E 06	*
17	47.71	73.18	200.8	306.4	2.609E-04	332.1	333.8	2.689E-04	308.6	1.5373E 06	1.4593E 06	*
18	47.83	73.12	210.8	317.4	3.661E-04	354.8	348.3	1.000E-06	348.2	1.5910E 06	1.9022E 06	*
19	47.97	73.09	224.8	349.4	4.544E-04	405.4	394.1	3.950E-04	338.6	1.9213E 06	2.1924E 06	*
20	52.32 43.99	72.83 73.37	170.6									*

ATR NOM HOT ASSEMBLY-CONTINUED FROM FLAKEING

3/08/67

MESH POINT - 116

DX = 0.02081 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR·FT ²	Q / A BTU/HR·FT ²	WINDOW
1	43.98 56.12	73.79 73.29	193.1	263.4	1.364E-04	276.4	287.3	1.628E-04	275.1	1.4897E 06	1.1633E 06	*
2	47.70	73.59	193.4	279.8	1.715E-04	293.5	292.9	1.703E-04	279.3	1.2291E 06	1.2470E 06	*
3	47.69	73.60	190.9	271.2	1.502E-04	282.1	281.3	1.484E-04	270.2	1.1323E 06	1.1669E 06	*
4	47.62	73.64	186.5	261.3	1.303E-04	270.1	269.3	1.287E-04	260.4	1.0429E 06	1.0795E 06	*
5	47.54	73.67	182.1	251.7	1.141E-04	258.8	258.3	1.132E-04	251.1	9.6038E 05	9.8515E 05	*
6	47.35	73.49	178.8	246.4	1.050E-04	252.6	252.4	1.045E-04	246.1	9.2165E 05	9.3545E 05	*
7	47.32	73.49	177.0	243.4	9.982E-05	249.1	249.0	9.956E-05	243.2	8.9856E 05	9.0548E 05	*
8	47.31	73.50	176.1	242.2	9.794E-05	247.8	247.8	9.787E-05	242.2	8.9230E 05	8.9405E 05	*
9	47.31	73.50	175.8	242.3	9.800E-05	247.9	247.9	9.813E-05	242.3	8.9500E 05	8.9135E 05	*
10	47.31	73.50	176.3	244.2	1.013E-04	250.2	250.5	1.018E-04	244.6	9.1701E 05	9.0471E 05	*
11	47.32	73.49	177.9	248.8	1.092E-04	255.6	255.9	1.090E-04	249.2	9.6274E 05	9.4742E 05	*
12	47.33	73.49	179.9	253.1	1.171E-04	260.6	261.0	1.100E-04	253.6	1.0006E 06	9.8031E 05	*
13	47.36	73.48	180.0	259.6	1.299E-04	268.4	268.9	1.308E-04	260.1	1.0624E 06	1.0423E 06	*
14	47.53	73.67	185.0	264.9	1.410E-04	274.9	275.4	1.421E-04	265.5	1.1082E 06	1.0850E 06	*
15	47.57	73.66	187.8	272.2	1.577E-04	284.2	285.0	1.601E-04	273.3	1.1792E 06	1.1377E 06	*
16	47.63	73.63	193.2	287.6	1.984E-04	304.6	305.9	2.029E-04	289.3	1.3399E 06	1.2777E 06	*
17	47.72	73.59	201.7	306.9	2.631E-04	332.7	334.4	2.713E-04	309.1	1.5338E 06	1.4552E 06	*
18	47.84	73.54	211.7	317.8	3.693E-04	355.4	348.9	1.000E-06	348.8	1.5867E 06	1.8976E 06	*
19	47.99	73.50	226.0	349.7	4.569E-04	405.7	394.0	3.952E-04	338.4	1.9112E 06	2.1921E 06	*
20	52.54	73.27	171.0									*
	43.98	73.79										*

ATR NOM HOT ASSEMBLY-CONTINUED FROM FLAKEING

3/08/67

MESH POINT - 117

DX = 0.00010 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR·FT ²	Q / A BTU/HR·FT ²	WINDOW
1	46.04 54.95	72.04 72.43	193.1	265.4	1.409E-04	278.9	289.9	1.683E-04	277.3	1.4916E 06	1.1614E 06	*
2	46.06	72.59	193.4	282.3	1.780E-04	296.3	295.9	1.768E-04	281.8	1.2295E 06	1.2466E 06	*
3	46.04	72.59	190.9	273.5	1.558E-04	284.8	284.1	1.540E-04	272.6	1.1331E 06	1.1661E 06	*
4	45.93	72.61	186.5	263.6	1.351E-04	272.6	271.9	1.335E-04	262.7	1.0437E 06	1.0786E 06	*
5	45.81	72.62	182.1	253.8	1.181E-04	261.1	260.6	1.171E-04	253.2	9.6010E 05	9.8541E 05	*
6	45.74	72.50	178.8	248.4	1.084E-04	254.8	254.5	1.079E-04	248.0	9.2193E 05	9.3514E 05	*
7	45.70	72.50	177.0	245.3	1.030E-04	251.2	251.1	1.028E-04	245.1	8.9870E 05	9.0532E 05	*
8	45.68	72.50	176.1	244.1	1.011E-04	249.9	249.9	1.010E-04	244.1	8.9233E 05	8.9400E 05	*
9	45.67	72.50	175.8	244.1	1.012E-04	249.9	250.0	1.013E-04	244.2	8.9493E 05	8.9140E 05	*
10	45.68	72.50	176.3	246.2	1.046E-04	252.3	252.6	1.051E-04	246.5	9.1679E 05	9.0491E 05	*
11	45.69	72.50	177.9	250.8	1.129E-04	257.8	258.1	1.135E-04	251.2	9.6246E 05	9.4768E 05	*
12	45.71	72.50	179.9	255.2	1.211E-04	262.9	263.3	1.220E-04	255.7	1.0002E 06	9.8067E 05	*
13	45.75	72.50	182.3	261.8	1.345E-04	271.0	271.4	1.356E-04	262.3	1.0629E 06	1.0418E 06	*
14	45.81	72.62	185.0	267.2	1.463E-04	277.6	278.1	1.475E-04	267.8	1.1077E 06	1.0854E 06	*
15	45.86	72.61	187.8	274.7	1.638E-04	287.0	287.9	1.661E-04	275.7	1.1783E 06	1.1386E 06	*
16	45.94	72.60	193.2	290.2	2.063E-04	307.9	309.2	2.108E-04	291.9	1.3369E 06	1.2791E 06	*
17	46.08	72.59	201.8	309.7	2.736E-04	336.5	338.0	2.815E-04	311.7	1.5310E 06	1.4580E 06	*
18	46.37	72.63	211.7	334.7	3.837E-04	378.9	381.0	3.956E-04	338.1	1.7937E 06	1.6905E 06	*
19	46.54	72.61	226.0	341.5	4.124E-04	387.6	361.8	2.957E-04	317.0	1.7419E 06	2.3613E 06	*
20	68.41	85.91	171.0									*
	41.94	72.64										*

MESH POINTS 118 TO 203 HAVE BEEN OMITTED

ATR NOM HOT ASSEMBLY-TAPERED CHAN NO 20-TIME 6 D (3 DAYS AFTER FLAKEING

3/08/67

FLOATING POINT SINGLE VALUE ARRAY

4,5000E+01	0,	2,5100E+01	2,5100E+01	3,0000E+02	1,5000E+02	4,0000E+02	2,0000E+02
0,	0,	1,3000E+02	1,0000E+02	1,0154E+02	4,5000E+01	4,5000E+01	5,0000E+01
5,0000E+01	7,0000E+01	7,0000E+01	1,0000E+00	9,0200E+04	1,2000E+03	1,2000E+03	1,0000E+00
5,0000E+03	1,5600E+01	4,4300E+02	8,2900E+03	7,7800E+01	-1,0000E+02		

HORIZONTAL PEAKING

1.40	1.30	1.20	1.10	1.00	0.95	0.92	0.91	0.91	0.93	0.98	1.02	1.09	1.14
1.21	1.38	1.59	1.87	2.22									

PLATE NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
VP PROFILE

FLOFED= 101,46000 LBS./SEC. AVEPL= 100,13692

ATR NOM HOT ASSEMBLY-TAPERED CHAN NO 20-TIME 6 D (3 DAYS AFTER FLAKEING

3/08/67

MESH POINT = 1

DX = 0.00000 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	52.89	27.86	130.0									
2	49.47	24.37	130.0	130.0	1.707E+05	130.0	130.0	1.707E+05	130.0	0.	0.	
3	49.47	24.37	130.0	130.0	1.707E+05	130.0	130.0	1.707E+05	130.0	0.	0.	
4	49.47	24.37	130.0	130.0	1.707E+05	130.0	130.0	1.707E+05	130.0	0.	0.	
5	49.47	24.37	130.0	130.0	1.707E+05	130.0	130.0	1.707E+05	130.0	0.	0.	
6	49.47	24.37	130.0	130.0	1.707E+05	130.0	130.0	1.707E+05	130.0	0.	0.	
7	49.47	24.37	130.0	130.0	1.707E+05	130.0	130.0	1.707E+05	130.0	0.	0.	
8	49.47	24.37	130.0	130.0	1.707E+05	130.0	130.0	1.707E+05	130.0	0.	0.	
9	49.47	24.37	130.0	130.0	1.707E+05	130.0	130.0	1.707E+05	130.0	0.	0.	
10	49.47	24.37	130.0	130.0	1.707E+05	130.0	130.0	1.707E+05	130.0	0.	0.	
11	49.47	24.37	130.0	130.0	1.707E+05	130.0	130.0	1.707E+05	130.0	0.	0.	
12	49.47	24.37	130.0	130.0	1.707E+05	130.0	130.0	1.707E+05	130.0	0.	0.	
13	49.47	24.37	130.0	130.0	1.707E+05	130.0	130.0	1.707E+05	130.0	0.	0.	
14	49.47	24.37	130.0	130.0	1.707E+05	130.0	130.0	1.707E+05	130.0	0.	0.	
15	49.47	24.37	130.0	130.0	1.707E+05	130.0	130.0	1.707E+05	130.0	0.	0.	
16	49.47	24.37	130.0	130.0	1.707E+05	130.0	130.0	1.707E+05	130.0	0.	0.	
17	49.47	24.37	130.0	130.0	1.707E+05	130.0	130.0	1.707E+05	130.0	0.	0.	
18	49.47	24.37	130.0	130.0	1.707E+05	130.0	130.0	1.707E+05	130.0	0.	0.	
19	49.47	24.37	130.0	130.0	1.707E+05	130.0	130.0	1.707E+05	130.0	0.	0.	
20	55.61	30.74	130.0	130.0	1.707E+05	130.0	130.0	1.707E+05	130.0	0.	0.	
	48.64	23.55										

ATR NOM HOT ASSEMBLY-TAPERED CHAN NO 20-TIME 6 D (3 DAYS AFTER FLAKEING

3/08/67

MESH POINT = 5

DX = 0,02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG, F,	TSURFACE DEG, F,	FILMTH INCHES	TINTFACE DEG, F,	TINTFACE DEG, F,	FILMTH INCHES	TSURFACE DEG, F,	Q / A BTU/MH*FT2	Q / A BTU/MH*FT2	WINDOW
1	48,60 52,90	25,58 29,32	130,0	148,8	2,702E+05	149,2	149,1	2,699E+05	148,7	2,2030E 05	2,2148E 05	
2	49,47	26,28	130,1	147,4	2,611E+05	147,7	147,7	2,611E+05	147,4	2,0507E 05	2,0515E 05	
3	49,47	26,28	130,1	146,0	2,535E+05	146,3	146,3	2,535E+05	146,0	1,8929E 05	1,8937E 05	
4	49,47	26,28	130,1	144,7	2,464E+05	145,0	145,0	2,463E+05	144,7	1,7352E 05	1,7360E 05	
5	49,47	26,28	130,1	143,4	2,396E+05	143,6	143,6	2,396E+05	143,4	1,5775E 05	1,5781E 05	
6	49,47	26,28	130,1	142,7	2,361E+05	142,9	142,9	2,361E+05	142,7	1,4987E 05	1,4991E 05	
7	49,47	26,28	130,1	142,3	2,340E+05	142,5	142,5	2,340E+05	142,3	1,4515E 05	1,4516E 05	
8	49,47	26,28	130,1	142,2	2,333E+05	142,4	142,4	2,333E+05	142,2	1,4358E 05	1,4358E 05	
9	49,47	26,28	130,1	142,2	2,333E+05	142,4	142,4	2,333E+05	142,2	1,4358E 05	1,4357E 05	
10	49,47	26,28	130,1	142,4	2,347E+05	142,6	142,6	2,347E+05	142,4	1,4675E 05	1,4672E 05	
11	49,47	26,28	130,1	140,1	2,302E+05	143,3	143,3	2,382E+05	143,1	1,5464E 05	1,5461E 05	
12	49,47	26,28	130,1	143,6	2,411E+05	143,9	143,9	2,411E+05	143,6	1,6096E 05	1,6091E 05	
13	49,47	26,28	130,1	144,6	2,441E+05	144,8	144,8	2,441E+05	144,6	1,7200E 05	1,7215E 05	
14	49,47	26,28	130,1	145,2	2,498E+05	145,5	145,5	2,498E+05	145,2	1,7989E 05	1,7984E 05	
15	49,47	26,28	130,1	146,2	2,550E+05	146,5	146,5	2,550E+05	146,2	1,9094E 05	1,9086E 05	
16	49,47	26,28	130,1	148,4	2,681E+05	148,8	148,8	2,681E+05	148,4	2,1781E 05	2,1766E 05	
17	49,47	26,28	130,1	151,2	2,850E+05	151,7	151,7	2,850E+05	151,2	2,5096E 05	2,5077E 05	
18	49,47	26,28	130,2	155,0	3,090E+05	155,6	155,6	3,090E+05	155,0	2,9515E 05	2,9494E 05	
19	49,47	26,28	130,2	158,6	3,335E+05	159,3	158,3	3,259E+05	157,6	3,3810E 05	3,6244E 05	
20	53,89 48,60	32,46 25,58	130,1									

ATR NOM HOT ASSEMBLY-TAPERED CHAN NO 20-TIME 6 D (3 DAYS AFTER FLAKEING

3/08/67

MESH POINT = 9

DX = 0,02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG, F,	TSURFACE DEG, F,	FILMTH INCHES	TINTFACE DEG, F,	TINTFACE DEG, F,	FILMTH INCHES	TSURFACE DEG, F,	Q / A BTU/MH*FT2	Q / A BTU/MH*FT2	WINDOW
1	49,54 52,90	27,50 30,78	130,3	155,0	3,125E+05	155,6	155,6	3,128E+05	155,0	2,9080E 05	2,8964E 05	
2	49,48	28,20	130,7	153,3	3,003E+05	153,8	153,8	3,003E+05	153,3	2,6926E 05	2,6973E 05	
3	49,48	28,20	130,7	151,5	2,889E+05	152,0	152,0	2,889E+05	151,5	2,4854E 05	2,4809E 05	
4	49,47	28,20	130,6	149,7	2,783E+05	150,1	150,1	2,782E+05	149,7	2,2780E 05	2,2827E 05	
5	49,47	28,20	130,6	147,9	2,683E+05	148,3	148,3	2,683E+05	147,9	2,0713E 05	2,0748E 05	
6	49,47	28,20	130,5	147,0	2,631E+05	147,4	147,4	2,630E+05	147,0	1,9684E 05	1,9703E 05	
7	49,47	28,20	130,5	146,5	2,600E+05	146,8	146,8	2,600E+05	146,5	1,9067E 05	1,9077E 05	
8	49,47	28,20	130,5	146,3	2,589E+05	146,6	146,6	2,589E+05	146,3	1,8863E 05	1,8866E 05	
9	49,47	28,20	130,5	146,3	2,589E+05	146,6	146,6	2,590E+05	146,3	1,8867E 05	1,8862E 05	
10	49,47	28,20	130,5	146,7	2,610E+05	147,0	147,0	2,610E+05	146,7	1,9287E 05	1,9271E 05	
11	49,47	28,20	130,5	147,6	2,661E+05	147,9	147,9	2,662E+05	147,6	2,0326E 05	2,0305E 05	
12	49,47	28,20	130,5	148,3	2,704E+05	148,7	148,7	2,704E+05	148,3	2,1158E 05	2,1132E 05	
13	49,47	28,20	130,6	149,5	2,778E+05	149,9	149,9	2,779E+05	149,5	2,2610E 05	2,2582E 05	
14	49,47	28,20	130,6	150,4	2,833E+05	150,9	150,9	2,834E+05	150,4	2,3640E 05	2,3619E 05	
15	49,47	28,20	130,6	151,7	2,912E+05	152,2	152,2	2,913E+05	151,7	2,5111E 05	2,5050E 05	
16	49,47	28,20	130,7	154,7	3,109E+05	155,3	155,3	3,110E+05	154,7	2,8651E 05	2,8565E 05	
17	49,48	28,20	130,8	158,5	3,368E+05	159,2	159,2	3,370E+05	158,5	3,3016E 05	3,2906E 05	
18	49,48	28,20	130,9	163,5	3,742E+05	164,4	164,4	3,744E+05	163,5	3,8825E 05	3,8706E 05	
19	49,48	28,20	131,1	168,6	4,156E+05	169,8	168,7	4,060E+05	167,9	4,4768E 05	4,7274E 05	
20	52,27 48,56	33,98 27,59	130,7									

ATR NOM HOT ASSEMBLY-TAPERED CHAN NO 20-TIME 6 D (3 DAYS AFTER FLAKEING

3/08/67

MESH POINT = 13

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG, F,	TSURFACE DEG, F,	FILMTH INCHES	TINTFACE DEG, F,	TINTFACE DEG, F,	FILMTH INCHES	TSURFACE DEG, F,	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	48.52 52.90	29.61 32.25	130.5									
2	49.48	30.12	131.5	161.2	3.610E+05	162.1	162.2	3.621E+05	161.4	3.6161E 05	3.5752E 05	
3	49.48	30.12	131.4	159.4	3.455E+05	160.1	160.1	3.453E+05	159.3	3.3342E 05	3.3434E 05	
4	49.48	30.12	131.3	157.1	3.294E+05	157.8	157.7	3.292E+05	157.1	3.0774E 05	3.0865E 05	
5	49.48	30.11	131.2	154.9	3.144E+05	155.4	155.4	3.143E+05	154.8	2.8205E 05	2.8299E 05	
				152.6	3.006E+05	153.1	153.1	3.005E+05	152.6	2.5648E 05	2.5719E 05	
6	49.48	30.11	131.1	151.5	2.933E+05	151.9	151.9	2.933E+05	151.5	2.4380E 05	2.4418E 05	
7	49.48	30.11	131.0	150.8	2.891E+05	151.2	151.2	2.890E+05	150.8	2.3619E 05	2.3638E 05	
8	49.48	30.11	131.0	150.6	2.876E+05	151.0	151.0	2.876E+05	150.6	2.3369E 05	2.3374E 05	
9	49.48	30.11	131.0	150.6	2.876E+05	151.0	151.0	2.876E+05	150.6	2.3376E 05	2.3367E 05	
10	49.48	30.11	131.0	151.0	2.905E+05	151.5	151.5	2.905E+05	151.0	2.3902E 05	2.3869E 05	
11	49.48	30.11	131.1	152.1	2.975E+05	152.6	152.6	2.976E+05	152.2	2.5190E 05	2.5149E 05	
12	49.48	30.11	131.1	153.1	3.034E+05	153.6	153.6	3.035E+05	153.1	2.6223E 05	2.6171E 05	
13	49.48	30.11	131.2	154.6	3.138E+05	155.2	155.2	3.139E+05	154.6	2.8023E 05	2.7966E 05	
14	49.48	30.11	131.2	155.8	3.215E+05	156.4	156.4	3.216E+05	155.8	2.9307E 05	2.9251E 05	
15	49.48	30.12	131.3	157.3	3.326E+05	158.0	158.0	3.328E+05	157.4	3.1132E 05	3.1021E 05	
16	49.48	30.12	131.4									
17	49.48	30.12	131.6	161.1	3.604E+05	162.0	162.0	3.607E+05	161.2	3.5529E 05	3.5357E 05	
18	49.49	30.12	131.9	165.8	3.977E+05	166.9	166.9	3.981E+05	165.9	4.0946E 05	4.0727E 05	
19	49.49	30.12	132.2	172.1	4.522E+05	173.5	173.5	4.527E+05	172.1	4.8148E 05	4.7907E 05	
20	50.75 48.52	35.37 29.61	131.4	178.8	5.174E+05	180.7	179.7	5.072E+05	177.8	5.5911E 05	5.8123E 05	

MESH POINTS 14 TO 98 HAVE BEEN OMITTED

ATR NOM HOT ASSEMBLY-TAPERED CHAN NO 20-TIME 6 D (3 DAYS AFTER FLAKEING

3/08/67

MESH POINT = 99

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG, F,	TSURFACE DEG, F,	FILMTH INCHES	TINTFACE DEG, F,	TINTFACE DEG, F,	FILMTH INCHES	TSURFACE DEG, F,	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	44.83 56.08	67.27 66.89	147.2									
2	48.19	67.26	177.4	251.7	2.156E+04	270.8	274.8	2.486E+04	260.5	1.3822E 06	1.1434E 06	
3	48.18	67.27	175.1	262.1	2.544E+04	281.1	280.7	2.526E+04	261.0	1.6641E 06	1.1807E 06	
4	48.11	67.26	171.5	253.5	2.226E+04	268.8	268.3	2.205E+04	252.0	1.0705E 06	1.0943E 06	
5	48.04	67.30	168.0	244.3	1.935E+04	256.5	255.9	1.917E+04	243.6	9.7944E 05	1.0050E 06	
				235.2	1.689E+04	244.8	244.4	1.677E+04	234.6	8.9291E 05	9.1109E 05	
6	47.86	67.13	165.3	230.1	1.598E+04	238.6	238.4	1.591E+04	229.8	8.5153E 05	8.6227E 05	
7	47.84	67.14	163.9	227.1	1.483E+04	235.0	234.9	1.480E+04	227.0	8.2713E 05	8.3255E 05	
8	47.83	67.14	163.2	226.0	1.457E+04	233.7	233.7	1.456E+04	226.0	8.2014E 05	8.2190E 05	
9	47.82	67.14	163.0	226.1	1.457E+04	233.7	233.8	1.459E+04	226.1	8.2224E 05	8.1940E 05	
10	47.83	67.14	163.4	228.0	1.505E+04	236.1	236.3	1.511E+04	228.2	8.4367E 05	8.3405E 05	
11	47.84	67.14	164.6	232.5	1.622E+04	241.8	242.0	1.630E+04	232.6	8.8991E 05	8.7801E 05	
12	47.85	67.14	166.2	236.6	1.733E+04	246.9	247.2	1.742E+04	237.0	9.2741E 05	9.1266E 05	
13	47.87	67.13	166.2	242.8	1.914E+04	255.0	255.3	1.924E+04	243.2	9.9019E 05	9.7617E 05	
14	48.04	67.30	170.3	247.7	2.065E+04	261.4	261.7	2.078E+04	248.2	1.0359E 06	1.0206E 06	
15	48.08	67.29	172.5	254.5	2.300E+04	270.8	271.4	2.328E+04	255.4	1.1065E 06	1.0764E 06	
16	48.13	67.28	176.7	269.5	2.895E+04	293.0	294.0	2.953E+04	270.9	1.2693E 06	1.2203E 06	
17	48.21	67.26	183.7	288.4	3.818E+04	324.3	325.0	3.904E+04	290.4	1.4650E 06	1.4034E 06	
18	48.32	67.23	192.5	312.4	5.915E+04	377.6	378.9	6.066E+04	314.5	1.7185E 06	1.6550E 06	
19	48.43	67.26	202.7	333.5	6.969E+04	420.0	414.4	6.487E+04	328.3	1.9355E 06	2.0693E 06	
20	50.19 44.83	66.88 67.27	163.1									

ATR NOM HOT ASSEMBLY-TAPERED CHAN NO 20-TIME 6 D (3 DAYS AFTER FLAKEING

3/08/07

MESH POINT = 103

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDOW
1	44.57 56.15	68.44 68.14	148.0	252.6	2.191E+04	272.1	280.5	2.549E+04	262.0	1.3892E 06	1.1364E 06	
2	47.98	68.39	179.6	264.0	2.630E+04	283.6	283.2	2.611E+04	263.5	1.1641E 06	1.1811E 06	
3	47.97	68.40	177.2	255.3	2.298E+04	271.1	270.6	2.274E+04	254.6	1.0697E 06	1.0951E 06	
4	47.90	68.42	173.5	246.0	1.993E+04	258.5	258.0	1.973E+04	245.3	9.7921E 05	1.0052E 06	
5	47.83	68.43	164.8	236.8	1.738E+04	246.7	246.3	1.726E+04	236.3	8.9239E 05	9.1161E 05	
6	47.65	68.26	167.0	231.7	1.603E+04	240.4	240.2	1.596E+04	231.4	8.5124E 05	8.6256E 05	
7	47.62	68.27	165.5	228.6	1.526E+04	236.7	236.6	1.523E+04	228.5	8.2700E 05	8.3268E 05	
8	47.61	68.27	164.8	227.5	1.498E+04	235.4	235.4	1.497E+04	227.5	8.2010E 05	8.2154E 05	
9	47.61	68.27	164.6	227.5	1.499E+04	235.4	235.5	1.501E+04	227.6	8.2232E 05	8.1932E 05	
10	47.61	68.27	165.0	229.5	1.549E+04	237.9	238.1	1.555E+04	229.8	8.4391E 05	8.3380E 05	
11	47.62	68.27	166.3	234.1	1.669E+04	243.6	243.9	1.677E+04	234.4	8.9021E 05	8.7770E 05	
12	47.63	68.27	167.9	238.2	1.783E+04	248.8	249.2	1.793E+04	238.7	9.2782E 05	9.1226E 05	
13	47.66	68.26	170.0	244.5	1.970E+04	257.0	257.3	1.981E+04	244.9	9.9012E 05	9.7624E 05	
14	47.83	68.43	172.2	249.4	2.129E+04	263.6	263.9	2.143E+04	249.9	1.0364E 06	1.0201E 06	
15	47.86	68.43	174.6	256.3	2.376E+04	273.2	273.9	2.408E+04	257.3	1.1075E 06	1.0754E 06	
16	47.92	68.41	174.1	271.5	2.998E+04	295.9	297.0	3.062E+04	273.1	1.2714E 06	1.2182E 06	
17	48.00	68.39	186.3	290.7	3.957E+04	327.9	329.2	4.047E+04	292.7	1.4648E 06	1.4036E 06	
18	48.12	68.35	195.4	309.1	5.672E+04	368.7	366.7	3.949E+04	322.8	1.6394E 06	1.7341E 06	
19	48.23	68.32	200.1	333.9	7.016E+04	419.2	410.5	6.271E+04	325.9	1.8981E 06	2.1068E 06	
20	52.77	69.59	164.3									
	44.57	68.44										

ATR NOM HOT ASSEMBLY-TAPERED CHAN NO 20-TIME 6 D (3 DAYS AFTER FLAKEING

3/08/07

MESH POINT = 107

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDOW
1	44.52 56.17	70.16 69.74	149.1	253.4	2.224E+04	273.2	282.2	2.610E+04	263.4	1.3922E 06	1.1244E 06	
2	46.03	70.09	182.5	265.8	2.716E+04	286.0	285.6	2.695E+04	265.3	1.1588E 06	1.1780E 06	
3	46.01	70.10	180.0	257.1	2.371E+04	273.2	272.7	2.343E+04	256.3	1.0647E 06	1.0924E 06	
4	47.94	70.12	176.2	247.6	2.050E+04	260.4	259.8	2.028E+04	246.8	9.7461E 05	1.0027E 06	
5	47.87	70.14	172.2	238.3	1.786E+04	248.5	248.1	1.772E+04	237.8	8.8891E 05	9.0867E 05	
6	47.68	69.97	169.3	233.2	1.646E+04	242.1	241.9	1.638E+04	232.8	8.4776E 05	8.5993E 05	
7	47.65	69.97	167.7	230.1	1.566E+04	238.4	238.3	1.563E+04	229.9	8.2383E 05	8.2994E 05	
8	47.64	69.97	166.9	229.0	1.538E+04	237.0	237.0	1.537E+04	228.9	8.1713E 05	8.1867E 05	
9	47.64	69.97	166.7	229.0	1.539E+04	237.1	237.1	1.540E+04	229.1	8.1951E 05	8.1629E 05	
10	47.64	69.97	167.1	231.0	1.589E+04	239.5	239.8	1.596E+04	231.3	8.4130E 05	8.3045E 05	
11	47.65	69.97	168.5	235.8	1.712E+04	245.3	245.6	1.721E+04	236.0	8.8749E 05	8.7413E 05	
12	47.67	69.97	170.2	239.8	1.831E+04	250.6	250.9	1.843E+04	240.2	9.2460E 05	9.0892E 05	
13	47.69	69.96	172.4	246.1	2.025E+04	258.9	259.2	2.037E+04	246.5	9.8730E 05	9.7200E 05	
14	47.87	70.14	174.9	251.0	2.192E+04	265.5	265.9	2.208E+04	251.5	1.0335E 06	1.0157E 06	
15	47.90	70.13	177.3	258.1	2.452E+04	275.5	276.2	2.489E+04	259.2	1.1055E 06	1.0695E 06	
16	47.96	70.12	182.1	273.5	3.094E+04	298.7	299.9	3.160E+04	275.4	1.2691E 06	1.2116E 06	
17	48.05	70.04	184.7	293.0	4.081E+04	331.2	332.5	4.186E+04	295.0	1.4603E 06	1.3978E 06	
18	48.17	70.04	194.3	312.4	5.388E+04	369.5	368.3	4.006E+04	324.4	1.6527E 06	1.7087E 06	
19	48.29	70.01	210.7	337.1	7.315E+04	426.1	418.0	6.597E+04	329.6	1.8985E 06	2.0921E 06	
20	51.46	69.89	165.8									
	44.52	70.16										

ATR NOM HOT ASSEMBLY-TAPERED CHAN NO 20-TIME 6 D 13 DAYS AFTER FLAKEING

3/08/67

MESH POINT = 111

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	44.24 56.05	71.73 71.23	150.2	254.4	2.264E+04	274.6	284.1	2.681E+04	265.0	1.3941E 06	1.1099E 06	*
2	47.81	71.61	185.4	268.0	2.815E+04	288.8	288.4	2.793E+04	267.4	1.1526E 06	1.1725E 06	*
3	47.79	71.62	182.9	259.2	2.458E+04	275.8	275.2	2.427E+04	258.2	1.0576E 06	1.0887E 06	*
4	47.72	71.65	178.8	249.5	2.121E+04	262.6	262.0	2.095E+04	248.6	9.6856E 05	9.9886E 05	*
5	47.64	71.67	174.6	240.1	1.842E+04	250.5	250.1	1.827E+04	239.5	8.8381E 05	9.0475E 05	*
6	47.46	71.49	171.5	234.9	1.695E+04	244.0	243.8	1.687E+04	234.5	8.4342E 05	8.5572E 05	*
7	47.43	71.50	169.8	231.8	1.612E+04	240.2	240.1	1.608E+04	231.6	8.1948E 05	8.2600E 05	*
8	47.41	71.50	169.0	230.6	1.583E+04	238.9	238.8	1.582E+04	230.6	8.1298E 05	8.1462E 05	*
9	47.41	71.50	168.7	230.6	1.583E+04	238.9	239.0	1.585E+04	230.7	8.1552E 05	8.1208E 05	*
10	47.41	71.50	169.2	232.6	1.636E+04	241.4	241.7	1.643E+04	232.9	8.3731E 05	8.2606E 05	*
11	47.42	71.50	170.7	237.3	1.704E+04	247.2	247.5	1.774E+04	237.6	8.8316E 05	8.6964E 05	*
12	47.44	71.49	172.5	241.5	1.888E+04	252.6	252.9	1.901E+04	241.9	9.2060E 05	9.0374E 05	*
13	47.47	71.49	174.8	247.8	2.091E+04	261.0	261.3	2.106E+04	248.3	9.8305E 05	9.6649E 05	*
14	47.64	71.67	177.3	252.9	2.268E+04	267.9	268.3	2.287E+04	253.4	1.0291E 06	1.0099E 06	*
15	47.68	71.66	180.0	260.2	2.542E+04	278.1	278.9	2.583E+04	261.4	1.1020E 06	1.0621E 06	*
16	47.74	71.64	185.1	275.8	3.206E+04	301.8	303.0	3.275E+04	277.7	1.2631E 06	1.2051E 06	*
17	47.83	71.60	193.1	295.3	4.230E+04	334.8	336.3	4.351E+04	297.6	1.4565E 06	1.3873E 06	*
18	47.96	71.56	203.2	315.5	5.446E+04	373.2	378.3	4.159E+04	327.1	1.6511E 06	1.6935E 06	*
19	48.08	71.52	215.3	339.0	7.519E+04	429.4	420.1	6.673E+04	330.4	1.8741E 06	2.0966E 06	*
20	51.79	71.27	167.4									*
	44.24	71.73										*

ATR NOM HOT ASSEMBLY-TAPERED CHAN NO 20-TIME 6 D 13 DAYS AFTER FLAKEING

3/08/67

MESH POINT = 115

DX = 0.02080 FT.

CHANNEL	VEL FT/SEC	TOTPL PSI	TBULK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/HR*FT2	Q / A BTU/HR*FT2	WINDOW
1	43.99 55.94	73.30 72.72	151.3	255.0	2.286E+04	275.4	285.4	2.728E+04	266.3	1.3909E 06	1.0915E 06	*
2	47.61	73.13	160.8	270.0	2.892E+04	291.1	290.7	2.875E+04	269.3	1.1424E 06	1.1627E 06	*
3	47.60	73.14	185.7	261.0	2.533E+04	278.0	277.3	2.499E+04	260.0	1.0470E 06	1.0808E 06	*
4	47.52	73.17	181.4	251.1	2.183E+04	264.5	263.8	2.154E+04	250.1	9.5867E 05	9.9181E 05	*
5	47.44	73.21	177.0	241.5	1.892E+04	252.1	251.7	1.875E+04	240.9	8.7529E 05	8.9787E 05	*
6	47.25	73.02	173.7	236.2	1.738E+04	245.5	245.3	1.729E+04	235.9	8.3571E 05	8.4880E 05	*
7	47.22	73.02	171.9	233.1	1.652E+04	241.7	241.6	1.647E+04	232.9	8.1230E 05	8.1091E 05	*
8	47.21	73.03	171.1	232.0	1.621E+04	240.3	240.3	1.620E+04	231.9	8.0597E 05	8.0761E 05	*
9	47.20	73.03	170.8	232.0	1.622E+04	240.4	240.5	1.624E+04	232.1	8.0852E 05	8.0506E 05	*
10	47.21	73.03	171.3	234.0	1.676E+04	242.9	243.2	1.684E+04	234.3	8.3033E 05	8.1871E 05	*
11	47.22	73.02	172.8	238.6	1.808E+04	248.8	249.1	1.819E+04	239.0	8.7610E 05	8.6161E 05	*
12	47.23	73.02	174.8	242.9	1.938E+04	254.2	254.6	1.953E+04	243.4	9.1336E 05	8.9527E 05	*
13	47.26	73.01	177.2	249.3	2.150E+04	262.8	263.1	2.167E+04	249.8	9.7534E 05	9.5742E 05	*
14	47.44	73.21	179.9	254.5	2.335E+04	269.8	270.3	2.356E+04	255.2	1.0216E 06	9.9977E 05	*
15	47.48	73.19	182.7	262.0	2.617E+04	280.4	281.2	2.659E+04	263.3	1.0939E 06	1.0910E 06	*
16	47.54	73.17	184.0	277.7	3.297E+04	304.2	305.4	3.374E+04	279.6	1.2530E 06	1.1940E 06	*
17	47.64	73.12	196.4	297.3	4.361E+04	337.8	339.4	4.496E+04	299.8	1.4478E 06	1.3715E 06	*
18	47.77	73.07	207.0	318.0	5.625E+04	377.1	376.3	4.332E+04	329.7	1.6391E 06	1.6767E 06	*
19	47.89	73.03	215.8	340.4	7.669E+04	430.8	420.1	6.669E+04	330.5	1.8396E 06	2.0969E 06	*
20	52.31	72.78	166.9									*
	43.99	73.60										*

ATR NOM HOT ASSEMBLY-TAPERED CHAN NO 20-TIME 6 D (3 DAYS AFTER FLAKEING

3/08/67

MESH POINT = 116

DX = 0.02080 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBLK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDOW
1	43.97 56.10	73.72 73.24	151.5	255.0	2.285E=04	275.3	285.5	2.736E=04	266.5	1.3906E 06	1.0856E 06	*
2	47.62	73.54	185.0	270.3	2.008E=04	291.6	291.1	2.888E=04	269.7	1.1394E 06	1.1599E 06	*
3	47.61	73.55	186.4	281.4	2.548E=04	278.4	277.7	2.515E=04	260.3	1.0441E 06	1.0783E 06	*
4	47.53	73.59	182.0	251.4	2.198E=04	264.9	264.2	2.168E=04	250.4	9.5970E 05	9.8977E 05	*
5	47.45	73.62	177.6	241.8	1.904E=04	252.5	252.0	1.886E=04	241.2	8.7282E 05	8.9584E 05	*
6	47.26	73.43	174.3	236.5	1.748E=04	245.8	245.6	1.739E=04	236.1	8.3345E 05	8.4678E 05	*
7	47.23	73.44	172.5	233.4	1.661E=04	242.0	241.9	1.657E=04	233.2	8.1025E 05	8.1692E 05	*
8	47.21	73.44	171.6	232.2	1.630E=04	240.6	240.6	1.629E=04	232.2	8.0390E 05	8.0598E 05	*
9	47.21	73.44	171.4	232.2	1.631E=04	240.7	240.7	1.633E=04	232.3	8.0650E 05	8.0298E 05	*
10	47.22	73.44	171.8	234.2	1.686E=04	243.2	243.4	1.694E=04	234.6	8.2834E 05	8.1652E 05	*
11	47.23	73.44	173.4	238.9	1.819E=04	249.1	249.4	1.810E=04	239.3	8.1404E 05	8.5927E 05	*
12	47.24	73.44	174.1	243.2	1.950E=04	254.6	254.9	1.966E=04	243.7	9.1123E 05	8.9280E 05	*
13	47.27	73.43	177.8	249.6	2.164E=04	263.1	263.5	2.181E=04	250.1	9.7318E 05	9.5467E 05	*
14	47.45	73.62	180.5	254.9	2.351E=04	270.2	270.7	2.372E=04	255.5	1.0193E 06	9.9700E 05	*
15	47.49	73.61	183.3	262.4	2.634E=04	280.8	281.7	2.676E=04	263.7	1.0915E 06	1.0485E 06	*
16	47.55	73.58	186.8	278.1	3.318E=04	304.7	305.9	3.399E=04	280.0	1.2501E 06	1.1907E 06	*
17	47.65	73.54	191.3	297.7	4.393E=04	338.4	340.0	4.530E=04	300.3	1.4451E 06	1.3670E 06	*
18	47.78	73.48	205.0	318.4	5.667E=04	377.8	377.1	4.367E=04	330.3	1.6354E 06	1.6720E 06	*
19	47.91	73.44	220.9	340.6	7.703E=04	431.0	419.9	6.664E=04	330.3	1.8302E 06	2.0962E 06	*
20	52.52	73.22	169.3									*
	43.97	73.72										*

ATR NOM HOT ASSEMBLY-TAPERED CHAN NO 20-TIME 6 D (3 DAYS AFTER FLAKEING

3/08/67

MESH POINT = 117

DX = 0.00014 FT,

CHANNEL	VEL FT/SEC	TOTPL PSI	TBLK DEG. F.	TSURFACE DEG. F.	FILMTH INCHES	TINTFACE DEG. F.	TINTFACE DEG. F.	FILMTH INCHES	TSURFACE DEG. F.	Q / A BTU/MR*FT2	Q / A BTU/MR*FT2	WINDOW
1	41.95 54.92	72.57 72.37	151.5	256.9	2.360E=04	278.0	288.2	2.829E=04	268.6	1.3923E 06	1.0838E 06	*
2	45.96	72.53	189.0	272.7	3.020E=04	294.8	294.3	2.999E=04	272.1	1.1398E 06	1.1595E 06	*
3	45.94	72.53	186.4	263.6	2.643E=04	281.3	280.6	2.610E=04	262.6	1.0449E 06	1.0775E 06	*
4	45.82	72.55	182.0	253.5	2.278E=04	267.5	266.8	2.248E=04	252.6	9.5657E 05	9.8893E 05	*
5	45.69	72.55	177.6	243.8	1.970E=04	254.8	254.3	1.951E=04	243.1	8.7260E 05	8.9604E 05	*
6	45.62	72.43	174.3	238.3	1.805E=04	247.9	247.7	1.795E=04	237.9	8.3373E 05	8.4648E 05	*
7	45.58	72.43	172.5	235.1	1.715E=04	244.1	243.9	1.710E=04	235.0	8.1038E 05	8.1677E 05	*
8	45.56	72.43	171.6	234.0	1.682E=04	242.6	242.6	1.681E=04	233.9	8.0393E 05	8.0554E 05	*
9	45.55	72.43	171.4	234.0	1.683E=04	242.7	242.8	1.686E=04	234.1	8.0643E 05	8.0303E 05	*
10	45.56	72.43	171.8	236.0	1.741E=04	245.3	245.5	1.749E=04	236.4	8.2812E 05	8.1672E 05	*
11	45.57	72.43	173.4	240.8	1.879E=04	251.3	251.6	1.890E=04	241.2	8.7374E 05	8.5953E 05	*
12	45.59	72.43	175.4	245.1	2.016E=04	256.9	257.2	2.032E=04	245.6	9.1086E 05	8.9316E 05	*
13	45.64	72.43	177.8	251.7	2.242E=04	265.7	266.1	2.260E=04	252.3	9.7353E 05	9.5429E 05	*
14	45.69	72.55	180.5	257.1	2.440E=04	273.0	273.5	2.461E=04	257.7	1.0188E 06	9.9747E 05	*
15	45.75	72.55	183.3	264.7	2.735E=04	283.8	284.7	2.777E=04	266.0	1.0906E 06	1.0494E 06	*
16	45.85	72.54	188.8	280.7	3.451E=04	308.3	309.5	3.531E=04	282.5	1.2487E 06	1.1920E 06	*
17	45.99	72.53	197.3	300.4	4.568E=04	342.6	344.1	4.701E=04	302.9	1.4424E 06	1.3697E 06	*
18	46.29	72.57	208.0	325.7	6.412E=04	395.5	397.4	6.656E=04	328.7	1.6989E 06	1.6084E 06	*
19	46.45	72.54	220.9	332.7	6.947E=04	406.9	382.2	4.996E=04	309.8	1.6669E 06	2.2595E 06	*
20	68.39	85.86	169.3									*
	41.95	72.57										*

MESH POINTS 118 TO 203 HAVE BEEN OMITTED