AND COMPARISON FOR COMMERCIAL DISHMACHINES

Prepared by **AMERICAN DISH SERVICE** 

# Hot Water Single Door Dishmachines

CALCULATION				SAMPLE, HIGH TEMP DOOR MACHINE				
ELECTRICAL	3 Phase: Kw=(1	.73 x E x I x PF)÷k 1	Phase: Kw=(E x I	x PF)+k KWH= 1000w/1 hr E= vo	olts I= amperes	3 HP= .07457 Kw, Kw	c 1.341=hp	
MODEL:	Но	bart, AM-1	14	M	ODEL:	ADS, HT-	25 (alt)	
Racks Washed Per	Day:	200		Racks Wa	200			
NSF Racks Per Hou	ır:	53	-	NSF Racks Per Hour:				
Machine HRS/Operation: 3.77			_	Machine H	HRS/Oper	ation:	2.78	
Local Rate per KWH: 0.0725			=	Local Rate	e per KWI	<b>-</b> 1∶	0.0725	
(US Average .0725)	·			(US Average				
	<u>Amp</u>	<u>Kw</u>	<u>HP</u>		<u>Amp</u>	<u>Kw</u>	<u>HP</u>	
Voltage: 208v				Voltage: 208v				
Pump Motor:	3	0.75	1	Pump Motor:	8	2.24	3	
Pump Motor:				Pump Motor:				
Pump Motor:				Pump Motor:				
Conveyor Motor:				Conveyor Motor:				
Booster (built-in)				Booster (alternate)		13.5		
Tank Heater:		5		Tank Heater:				
Tank Heater:				Tank Heater:				
KWH		5.75		KWH		15.74		
Daily Machine Cost \$1.57				Daily Machine Co	st	\$3.17		
Booster Heater Model: Hatco C-10				Booster Heater M	odel:	ADS B-13		
Voltage: 208 amp KWH: 10 Rise:			Rise: 40°	Voltage: 208 amp	KWH	. 0	Rise: 40°	
Daily Booster Cost \$2.73		<del></del>	Daily Booster Cost		\$0.00	-		
Daily Machine & Boo	oster	4.30	_	Daily Machine & Boo	oster	\$3.17	_	
Cost Per Month		130.79	_	Cost Per Month \$96.42			-	
Electrical Cost Po	er Year	\$1,569.48		Electrical Cost Per Year \$1,157.02				
WATER AND S	EWER L	<u>JSAGE</u>	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	337 = ft³			
Local Water Cost (typical 1.09 ccf or .00145			-	ry Heating Capacity Temp Set @ 140 over Rate:) 100				
NSF (GPH) Water (	Consumpt	ion:	63.6	NSF (GPH) Water C	onsump	tion:	61.2	
Gallons of Water pe	r Day	239.77	<del></del>	Gallons of Water per	r Day	170.14		
Gallons of Water pe	•	87,516.05	_	Gallons of Water per	-	62,101.10	•	
Cost of Water	TOTAL:	\$126,90		Cost of Water	TOTAL:	\$90.05		
UNIDENTIFIED ENERGY COST C	OF PRIMARY HEAT	ING IS CALCULATED U	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM (	GROUND TEMP:	GAS (mcf) ELECTRIC (k	wh} STEAM (psi)	
Local Gas Rate:	5.50	(typical 5.50 per i	mcf)				_	
YEARLY HEATING COST: \$445.46 TOTAL				YEARLY HEATING	COST:	\$316.09	TOTAL	
Local Sewer Cos	t: .0028	(typical 2.1 per co	_ cf <u>or</u> .0028 per (	gallon)			_	
YEARLY SEWER C	OST:	\$245.04	TOTAL	YEARLY SEWER C	OST:	\$173.88	TOTAL	
Energy Tot	al:	\$2,386.88		Energy Total: \$1,737.05				
Associated Chem		\$1,890.35	il.	Associated Chemical Est.: \$1,341.38				
Total Cost to En		\$4,277.23	_	Total Cost to En		\$3,078.43	-	
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#### COMPARISON FOR COMMERCIAL DISHMACHINES

	COMPARISON FOR COMMERCIAL DISHMACHINES											
CALCULATIONS	PREPARE	D FOR:			SAMPLE,	HIGH TEM	P DOOR MACH	INE				
<u>ELECTRICAL</u>	3 Phase: Kw=(1.	73 x E x I x PF)÷k 1	Phase: Kw=(E x I	x PF)÷k KWH= 10	000w/1 hr E= v	olts (= amperes	3 HP= .07457 Kw, Kw	x 1.341=hp				
MODEL:	Но	bart, AM-1	14		M	ODEL:	ADS, I	HT-25				
Racks Washed Per I	⊃ay:	200	_		Racks Wa	shed Per	Day:	200				
NSF Racks Per Hou	r: _	53	-		NSF Rack	ks Per Hol	ur:	72				
Machine HRS/Opera	ation:	3.77	_		Machine H	HRS/Oper	ation:	2.78				
•	Local Rate per KWH: 0.0725		_	Local Rate per KWH:			<del>1</del> :	0.0725				
(US Average .0725)					(US Average	.0725)						
	Amp	<u>Kw</u>	<u>HP</u>	N	222	Amp	<u>Kw</u>	HP				
Voltage: 208v	3	0.75	1	Voltage:	208v	0	2.24					
Pump Motor: Pump Motor:	<u> </u>	0.75	1	Pump Mot Pump Mot		8	2.24	3				
Pump Motor:				Pump Mot								
Conveyor Motor:				Conveyor	1							
Booster (built-in)				Booster (a	3							
Tank Heater:		5		Tank Heat	•		8					
Tank Heater:				Tank Heat								
KWH		5.746		KWH	10		10.238					
Daily Machine Co	st	\$1.57	]		chine Co	st	\$2.06					
Booster Heater M	odel:	Hatco C-	10	Booster	Heater M	odel:	Hatco C	-6				
Voltage: 208 amp	KWH:	10	Rise: 40°	Voltage: 2	.08 amp	KWH:		Rise: 40°				
Daily Booster Cost	_	\$2.73	-	Daily Boos	•		\$1.21	-				
Daily Machine & Boo	ster	4.30	-	Daily Machine & Booster \$3.27				-				
Cost Per Month	_	130.79	•	Cost Per N			\$99.46	•				
Electrical Cost Pe	r Year [	\$1,569.48		Electrical Cost Per Year \$1,193.52								
WATER AND SI	EWER U	ISAGE	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = g	gal, Gal, x .13	337 = ft³		•				
Local Water Cost	.00145			Heating Ca	-		Temp Set @	140°				
(typical 1.09 ccf or .00145	per gallon)		(GPH recover	Rate:) 100								
NSF (GPH) Water C			63.6	NSF (GPF	•	•		58.6				
Gallons of Water per		239.77	_		Water pe	-	162.91	_				
Gallons of Water per	· Year	87,516.05	-	Gallons of	Water pe	r Year	59,462.15	-				
Cost of Water	TOTAL:	\$126.90	Annual control of the	Cost of W	ater	TOTAL:	\$86.22					
UNIDENTIFIED ENERGY COST OF	PRIMARY HEATI	NG IS CALCULATED U	SING TABLES AND	LOCAL RATES AT A	170° RISE FROM (	GROUND TEMP:	GAS (mcf) ELECTRIC (kt	vh) STEAM (psi)				
Local Gas Rate:	5.5 <b>0</b>	(typical 5.50 per n	ncf)									
YEARLY HEATING	COST: [	\$445.46	TOTAL	YEARLY I	HEATING	COST:	\$302.66	TOTAL				
Local Sewer Cost: .0028 (typical 2.1 per ccf or .0028 per gallon)							_					
YEARLY SEWER CO	OST:	\$245.04	TOTAL	YEARLY S	SEWER C	OST:	\$166.49	TOTAL				
Energy Tota	L	\$2,386.88			nergy Tota		\$1,748.90					
Associated Chemi	cal Est.: _	\$1,890.35	_	Associat	ted Chemi	ical Est.:	\$1,284.38	_				

Total Cost to End User:

\$3,033.28

\$4,277.23

CALCULATION			OL COIAII	SAMPLE I		P DOOR MACH	NE I
ELECTRICAL							
-				x PF)+k KWH= 1000w/1 hr E= vo			
MODEL:	Н	bart, AM-1	4	M	ODEL:	ADS, HT-2	25
Racks Washed Per	Day:	200	_	Racks Wa	Day:	200	
NSF Racks Per Hour: 58			_	NSF Rack	s Per Ho	ur:	72
Machine HRS/Opera	ation:	3.45	-	Machine H	IRS/Oper	ation:	2.78
Local Rate per KWH	<del>1</del> :	0.0725	•	Local Rate	e per KWI	Ⅎ:	0.0725
(US Average .0725)			_	(US Average .0725)			
	<u>Amp</u>	Kw	HP		<u>Amp</u>	<u>Kw</u>	HP
Voltage: 208v				Voltage: 208v			:
Pump Motor:	3	0.75	1	Pump Motor:	8	2.24	3
Pump Motor:			ļ	Pump Motor:			
Pump Motor:				Pump Motor:			
Conveyor Motor:				Conveyor Motor:			
Booster (built-in)				Booster (alternate)			
Tank Heater:		5		Tank Heater:		8	
Tank Heater:		13		Tank Heater:		40.04	
KWH		18.75	]	KWH		10.24	
Daily Machine Co	ost	\$4.69		Daily Machine Co		\$2.06	
Booster Heater N	lodel:	Hatco Built		Booster Heater M	odel:	Hatco B-12	
Voltage: 208 amp	KWH:	0	Rise: 70°	Voltage: 208 amp	KWH:	: 12	Rise: 70°
Daily Booster Cost		\$0.00	<b>-</b>	Daily Booster Cost \$2.42			
Daily Machine & Bo	oster	4.69	_	Daily Machine & Booster \$4.4			
Cost Per Month		142.65	7	Cost Per Month	\$136.26	ì	
Electrical Cost Po	er Year	\$1,711.80		Electrical Cost Pe	er Year	\$1,635.16	
<u>WATER AND S</u>	EWER (	<u>JSAGE</u>	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	337 = ft³		
Local Water Cost	t: .00145		•	Heating Capacity	140°		
(typical 1.09 ccf or .00145	per gallon)		(GPH recover	Rate:) 100			
NSF (GPH) Water (	Consumpt	ion:	62.6	NSF (GPH) Water C	onsump	tion:	61.2
Gallons of Water pe	r Day	215.97	_	Gallons of Water per	r Day	170.14	
Gallons of Water pe	r Year	78,829.05	_	Gallons of Water per	r Year	62,101.10	
Cost of Water	TOTAL:	\$114.30		Cost of Water	TOTAL:	\$90.05	
UNIDENTIFIED ENERGY COST O	OF PRIMARY HEAT	TING IS CALCULATED U	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM (	GROUND TEMP:	GAS (mcf) ELECTRIC (kv	vh} STEAM {psi}
Local Gas Rate:	5.50	(typical 5.50 per r	ncf)				
YEARLY HEATING	COST:	\$401.24	TOTAL	YEARLY HEATING	COST:	\$316.09	TOTAL
Local Sewer Cos	t: .0028	(typical 2.1 per co	– of <u>or</u> .0028 per g	gallon)			•
YEARLY SEWER C	OST:	\$220.72	TOTAL	YEARLY SEWER C	OST:	\$173.88	TOTAL
Energy Tot	al:	\$2,448.06	1	Energy Tota	al:	\$2,215.19	
Associated Chem		\$1,702.71	_1	Associated Chemi		\$1,341.38	1
Total Cost to En		\$4,150.77	-	Total Cost to En		\$3,556.57	
			_				=

CALOU ATION			VIERCIAL DISHMACHINES  SAMPLE, HIGH TEMP DOOR MACHINE				
CALCULATION							
<u>ELECTRICAL</u>	3 Phase: Kw=(1	.73 x E x I x PF)+k 1	Phase: Kw=(E x I	x PF)+k KWH= 1000w/1 hr E= v	olts I= amperes	HP= .07457 Kw, Kw	x 1.341=hp
MODEL:	Jack	son Perfor	mer	M	ODEL:	ADS, HT-	25 (Alt)
Racks Washed Per	Day:	200	_	Racks Wa	Day:	200	
NSF Racks Per Hou	ır:	59	_	NSF Rack	s Per Hou	ır:	72
Machine HRS/Operation: 3.39			Machine I	HRS/Opera	ation:	2.78	
<u> </u>		0.0725	<b></b>	Local Rate per KWH:			0.0725
(US Average .0725)	_	16	шъ	(US Average	(US Average .0725)		
Voltago: 115v	Amp	<u>Kw</u>	HP	Voltage: 208v	<u>Amp</u>	Kw	HP
Voltage: 115v Pump Motor:		0.56	0.75	Voltage: 208v Pump Motor:	8	2.24	3
Pump Motor:		0.00	0.70	Pump Motor:		£ £ T	
Pump Motor:				Pump Motor:			
Conveyor Motor:				Conveyor Motor:			
Booster (built-in)		11		Booster (alternate)	25	13.5	
Tank Heater:				Tank Heater:	21/8kw		
Tank Heater:				Tank Heater:			·
KWH		11.5595		KWH		15.738	
Daily Machine Co	st	\$2.84		Daily Machine Co	st	\$3.17	
Booster Heater Model: Built-in				Booster Heater M	odel:	<b>ADS B-13 B</b>	uilt-on
Voltage: 208 amp	KWH:	0	Rise: 40°	Voltage: 208 amp	KWH:	0	Rise: 40°
Daily Booster Cost		\$0.00	_	Daily Booster Cost		\$0.00	-
Daily Machine & Bo	oster	2.84	_	Daily Machine & Booster \$3.17			•
Cost Per Month		86.38		Cost Per Month \$96.42			7
Electrical Cost Pe	er Year	\$1,036.56	:	Electrical Cost Pe	er Year	\$1,157.02	
WATER AND S	EWER L	<u>JSAGE</u>	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gai. Gal. x .13	337 = ft³		
Local Water Cost	: .00145		Primary I	leating Capacity	-	Гетр Set @	140°
(typical 1.09 ccf or .00145	per gallon)		(GPH recover	Rate:) 100			
NSF (GPH) Water (	Consumpt	ion:	70.8	NSF (GPH) Water (	onsumpt	ion:	58.6
Gallons of Water pe	r Day	240.01		Gallons of Water pe	r Day	162.91	_
Gallons of Water pe	r Year	87,603.65		Gallons of Water pe	r Year	59,462.15	_
Cost of Water	TOTAL:	\$127.03		Cost of Water	TOTAL:	\$86.22	
UNIDENTIFIED ENERGY COST C	OF PRIMARY HEAT	'ING IS CALCULATED U	ISING TABLES AND	LOCAL RATES AT A 70° RISE FROM	GROUND TEMP: (	GAS {mcf} ELECTRIC {k	wh} STEAM (psi)
Local Gas Rate:	5.50	(typical 5.50 per	mcf)				_
YEARLY HEATING	COST:	\$445.90	TOTAL	YEARLY HEATING	COST:	\$302.66	TOTAL
Local Sewer Cos	t: .0028	(typical 2.1 per co	cf <u>or</u> .0028 per (	gallon)			
YEARLY SEWER C	OST:	\$245.29	TOTAL	YEARLY SEWER C	OST:	\$166.49	TOTAL
Energy Tot	al:	\$1,854.78		Energy Tot	al:	\$1,712.40	
Associated Chem		\$1,892.24	<b></b> I	Associated Chem		\$1,284.38	J
Total Cost to En		\$3,747.01	_	Total Cost to En	d User:	\$2,996.78	-
							<b></b>

CALCULATIONS				SAMPLE, HIGH TEMP DOOR MACHINE					
ELECTRICAL	3 Phase: Kw=(1	.73 x E x I x PF)÷k 1	Phase: Kw=(E x I	x PF)÷k KWH= 1000w/1 hr E= vo	olts I= amperes	HP= .07457 Kw, Kw	x 1.341=hp		
MODEL:	Jack	son 200B		M	ODEL:	ADS, HT-	25		
Racks Washed Per I	 Dav:	200		Racks Wa	shed Per	Dav:	200		
NSF Racks Per Hou	-	57	-	NSF Rack		•	72		
Machine HRS/Operation: 3.51			Machine H			2.78			
Local Rate per KWH: 0.05		-	Local Rate	•		0.05			
(typical range is .05 to .075)			-	(typical range	•				
	<u>Amp</u>	<u>Kw</u>	<u>HP</u>		<u>Amp</u>	<u>Kw</u>	<u>HP</u>		
Voltage: 3p/208v				Voltage: 3p/208v					
Pump Motor:	3	0.75	1	Pump Motor:	8	2.24	3		
Pump Motor:				Pump Motor:					
Pump Motor:				Pump Motor:					
Conveyor Motor:				Conveyor Motor:					
Booster (built-in)		10.5		Booster (alternate)					
Tank Heater:		5		Tank Heater:		8			
Tank Heater:				Tank Heater:					
KWH		16.25	] .	KWH		10.24	]		
Daily Machine Cost \$2.85				Daily Machine Co	st	\$1.42			
Booster Heater Model: Built-in				Booster Heater M	odel:	Hatco C-12			
Voltage: 208 amp	KWH:	0	Rise: 70°	Voltage: 208 amp	KWH	12	Rise: 70°		
Daily Booster Cost			<del>-</del>	Daily Booster Cost		\$1.67	_		
Daily Machine & Boo	ster	2.85	_	Daily Machine & Booster \$3.09			_		
Cost Per Month		86.69	_	Cost Per Month \$93.99			<b>-</b>		
Electrical Cost Pe	r Year	\$1,040.28		Electrical Cost Pe	r Year	\$1,127.83			
WATER AND S	EWER L	<u>JSAGE</u>	CCF = 100 ft <sup>3</sup>	CCF x 7,48 = gal. Gal. x .13	337 = ft³				
Local Water Cost	.00145		Primary I	Heating Capacity	i	Temp Set @	140°		
(typical 1.09 ccf or .00145	per gallon)		(GPH recover	Rate:) 100					
NSF (GPH) Water C	onsumpt	ion:	52.2	NSF (GPH) Water C	onsump	tion:	58.6		
Gallons of Water per	<sup>-</sup> Day	183.22	_	Gallons of Water per	r Day	162.91	_		
Gallons of Water per	Year	66,875.30		Gallons of Water per	r Year	59,462.15			
Cost of Water	TOTAL:	\$96,97		Cost of Water	TOTAL:	\$86.22	]		
UNIDENTIFIED ENERGY COST O	F PRIMARY HEAT	'ING IS CALCULATED U	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM C	GROUND TEMP:	GAS (mcf) ELECTRIC (k	wh} STEAM {psi}		
Local Gas Rate:	5.50	(typical 5.50 per i	ncf)				_		
YEARLY HEATING	COST:	\$340.40	TOTAL	YEARLY HEATING	COST:	\$302.66	TOTAL		
Local Sewer Cost	t: .0028	(typical 2.1 per co	 of <u>or</u> .0028 per (	gallon)			_		
YEARLY SEWER C	OST:	\$187.25	TOTAL	YEARLY SEWER C	OST:	\$166.49	TOTAL		
Energy Tota	al:	\$1,664.90		Energy Total: \$1,683.20					
Associated Chemi		\$1,444.51	_	Associated Chemical Est.: \$1,284.38					
Total Cost to En		\$3,109.41	_	Total Cost to En	d User:	\$2,967.58			
-			_			-			

#### **COMPARISON FOR COMMERCIAL DISHMACHINES**

COMPARISON FOR COMMERCIAL DISHMACHINES											
CALCULATIONS	PREPARE	D FOR:	Ci	hemical sanitizer compar	ed to HIGH	TEMP DOOR I	MACHINE				
ELECTRICAL 3	Phase: Kw=(1.	73 x E x I x PF)÷k 1 I	Phase: Kw=(E x I	x PF)÷k KWH= 1000w/1 hr E= v	olts I= amperes	HP= .07457 Kw, Kw	x 1.341=hp				
MODEL:	Jacks	son ES 200	00 (L)	M	ODEL:	ADS, HT-	25 (Alt)				
Racks Washed Per D	ay:	200		Racks Wa	200						
NSF Racks Per Hour:	NSF Racks Per Hour: 48			NSF Rack	72						
Machine HRS/Operation: 4.17			-	Machine I	HRS/Opera	ation:	2.78				
Local Rate per KWH: 0.05					e per KW⊦		0.05				
(typical range is .05 to .075)				(typical rang	e is .05 to .07	5)					
	<u>Amp</u>	<u>Kw</u>	<u> </u>	17.14	<u>Amp</u>	<u>Kw</u>	<u>HP</u>				
Voltage: 115v	12	0.55	0.75	Voltage: 208v		2.6					
Pump Motor:  Pump Motor:	12	0.55	0.75	Pump Motor: Pump Motor:	8	2.6	3				
Pump Motor:				Pump Motor:							
Conveyor Motor:				Conveyor Motor:							
Booster (built-in)				Booster (alternate)	25	13.5					
Tank Heater:		0		Tank Heater:	21/8kw						
Tank Heater:				Tank Heater:							
KWH		0.55		KWH		16.1					
Daily Machine Cos	st	\$2.24	1								
Booster Heater Mo	del:	N/A		Booster Heater M	odel:	<b>ADS B-13 B</b>	uilt-on				
Voltage: 208 amp KWH: 0 Rise: 0°				Voltage: 208 amp	KWH:	0	Rise: 40°				
Daily Booster Cost	-	\$0.00	•	Daily Booster Cost		\$0.00	•				
Daily Machine & Boos	ter	0.11	•	Daily Machine & Booster \$2.24							
Cost Per Month		3.35		Cost Per Month \$68.13							
Electrical Cost Per	Year	\$40.20		Electrical Cost Pe	er Year	\$817.58					
WATER AND SE	WER L	<u>ISAGE</u>	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	337 = ft³						
Local Water Cost: (typical 1.09 ccf or .00145 pe			Primary I	Heating Capacity • Rate:) 100	7	emp Set @	140°				
NSF (GPH) Water Co	nsumpti	on:	57.6	NSF (GPH) Water C	onsumpt	ion:	58.6				
Gallons of Water per I	⊃ay <sup>-</sup>	240.19		Gallons of Water pe	r Day	162.91	er 1				
Gallons of Water per `	Year <sup>-</sup>	87,669.35		Gallons of Water pe	r Year	59,462.15	•				
Cost of Water	TOTAL: [	\$127.12		Cost of Water	TOTAL:	\$86.22					
UNIDENTIFIED ENERGY COST OF F	RIMARY HEATI	NG IS CALCULATED US	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM	GROUND TEMP: G	AS (mcf) ELECTRIC (k	wh) STEAM (psi)				
Local Gas Rate: 5.	50	(typical 5.50 per m	ncf)								
YEARLY HEATING C	OST: [	\$446.24	TOTAL	YEARLY HEATING	COST:	\$302.66	TOTAL				
Local Sewer Cost:	r	(typical 2.1 per cc	T				7				
YEARLY SEWER CO	ST: [	\$245.47	TOTAL	YEARLY SEWER COST: \$166.49 TO							
Energy Total	Energy Total: \$859.03 Energy Total: \$1,372.96										
Associated Chemic	al Est.:	\$2,209.79		Associated Chem	ical Est.:	\$1,284.38					

Total Cost to End User:

\$2,657.34

\$3,068.83

#### COMPARISON FOR COMMERCIAL DISHMACHINES

CALCULATION				MERCIAL DISHN  Chemical Sanitizer compa			MACHINE
ELECTRICAL	3 Phase: Kw=(1	.73 x E x l x PF)÷k 1	Phase: Kw=(E x I	x PF)+k KWH= 1000w/1 hr E= v	oits I= amperes	s HP= .07457 Kw, Kw	: 1.341=hp
MODEL:	Jacks	on ES 400	0 (L)	M	ODEL:	ADS, HT-	25 (Alt)
Racks Washed Per	Day:	200		Racks Wa	Day:	200	
NSF Racks Per Hou	r:	80	-	NSF Rack	s Per Hou	ar:	72
Machine HRS/Operation: 2.50		-	Machine ł	HRS/Oper	ation:	2.78	
Local Rate per KWH: 0.0725		<b>-</b> -	Local Rate	e per KWI	<del>1</del> :	0.0725	
(US Average .0725)			_	(US Average	.0725)		
	Amp	<u>Kw</u>	HP ,		Amp	<u>Kw</u>	HP
Voltage: 115v		2 5 2	0 75	Voltage: 208v			
Pump Motor:	12	0.56	0.75	Pump Motor:	8	2.24	3
Pump Motor:	12	0.56	0.75	Pump Motor:			
Pump Motor: Conveyor Motor:				Pump Motor: Conveyor Motor:			
Booster (built-in)				Booster (alternate)	25	13.5	
Tank Heater:		0		Tank Heater:	21/8kw	15.5	
Tank Heater:				Tank Heater:	2170KW		
KWH	<u></u>	1.12		KWH		15.74	
Daily Machine Co	st	\$0.20	<u>i</u>	Daily Machine Co	st	\$3.17	
Booster Heater Model: N/A				Booster Heater M		ADS B-13 B	uilt-on
Voltage: 208 amp	KWH:		Rise: 0°	Voltage: 208 amp	KWH:		Rise: 40°
Daily Booster Cost	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	\$0.00	-	Daily Booster Cost		\$0.00	
Daily Machine & Boo	oster	0.20	<u>.</u>	Daily Machine & Booster \$3.17			•
Cost Per Month		6.08	=	Cost Per Month \$96.42			•
Electrical Cost Pe	er Year	\$72.96		Electrical Cost Per Year \$1,157.02			
WATER AND S	EWEDI	ISAGE	005 400 83	00° 740 4 0 4 4		<u> </u>	
		<u>JOAUL</u>		CCF x 7.48 = gal. Gal. x .13		Taman Cat @	4.400
Local Water Cost (typical 1.09 ccf or .00145			(GPH recover	Heating Capacity · Rate:) 100		Temp Set @	140°
NSF (GPH) Water C	onsumpt	ion:	120	NSF (GPH) Water C	onsumpt	tion:	58.6
Gallons of Water pe	r Day	300.00	_	Gallons of Water pe	r Day	162.91	
Gallons of Water pe	r Year	109,500.00	-	Gallons of Water pe	r Year	59,462.15	<b>-</b>
Cost of Water	TOTAL:	\$158.78		Cost of Water	TOTAL:	\$86.22	
UNIDENTIFIED ENERGY COST O	F PRIMARY HEAT	ING IS CALCULATED U	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM	GROUND TEMP:	GAS (mcf) ELECTRIC (kv	vh) STEAM (psi)
Local Gas Rate: YEARLY HEATING		(typical 5.50 per r	ncf) TOTAL	YEARLY HEATING	COST <sup>.</sup>	\$302.66	TOTAL
Local Sewer Cos		(typical 2.1 per co	1				1
YEARLY SEWER C		\$306.60	TOTAL	YEARLY SEWER C	OST:	\$166.49	TOTAL
Energy Tota	al:	\$1,095.70		Energy Tota	al:	\$1,712.40	
Associated Chem	ical Est.:	\$2,760.06	_	Associated Chem	ical Est.:	\$1,284.38	

Total Cost to End User:

\$2,996.78

\$3,855.75

#### **COMPARISON FOR COMMERCIAL DISHMACHINES**

COMPARISON FOR COMMERCIAL DISHMACHINES											
CALCULATIONS	PREPARE	D FOR:		SA	MPLE, H	IIGH TEM	P DOOR MACH	INE			
<u>ELECTRICAL</u>	3 Phase: Kw=(1.	.73 x E x I x PF)+k 1	Phase: Kw=(E x i	x PF)÷k KWH= 1000w	ı/1 hr  E= vo∣	ts I= amperes	HP= .07457 Kw, Kw	x 1.341=hp			
MODEL:	CN	1A 180 HT	<u>S</u>		MC	DDEL:	HT-	HT-25 (alt)			
Racks Washed Per I	Оау:	200		Racks Washed Per Day:			Day:	200			
NSF Racks Per Hou	r:	54	_	NS	SF Racks	s Per Hou	ır:	72			
Machine HRS/Operation: 3.70			Machine HRS/Operation:			ation:	2.78				
Local Rate per KWH: 0.0725		_	Local Rate per KWH:			0.0725					
(US Average .0725)				(US	Average .	0725)					
[	Amp	Kw	<u>HP</u>			<u>Amp</u>	<u>Kw</u>	<u>HP</u>			
Voltage: 208v/3ph	2	0.75		Voltage: 20			6.4				
Pump Motor:	3	0.75	1	Pump Motor:	<b>}</b> -	8	2.24	3			
Pump Motor: Pump Motor:				Pump Motor:	<u> </u>						
Conveyor Motor:				Pump Motor: Conveyor Mo		***************************************					
Booster (built-in)		12		Booster (alter	<u> </u>						
Tank Heater:		5		Tank Heater:	·		13.5				
Tank Heater:				Tank Heater:			10.0				
KWH		17.746	<u> </u>	KWH	L		15.738				
Daily Machine Co	st .	\$4.76		Daily Machi	ine Cos	st	\$3.17	J			
Booster Heater Me	odel:	CMA 12Kw	Built-in	Booster He	ater Mo	odel:	ADS B-13 B	uilt-on			
Voltage: 208 amp	KWH:	0	Rise: 40°	Voltage: 208		KWH:		Rise: 40°			
Daily Booster Cost		\$0.00	-	Daily Booster			\$0.00	-			
Daily Machine & Boo	ster .	4.76	-	Daily Machine & Booster \$3.17			-				
Cost Per Month	•	144.78	-	Cost Per Month \$96.42			_				
Electrical Cost Pe	r Year	\$1,737.36		Electrical C	ost Pe	r Year	\$1,157.02				
WATER AND SI	EWER L	JSAGE	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal.	Gal. x .133	37 = ft³		•			
Local Water Cost:	.00145		Primary I	leating Capa	city		Temp Set @	140°			
(typical 1.09 ccf or .00145 p	oer gallon)		(GPH recover	Rate:) 100							
NSF (GPH) Water C	onsumpti	on:	52	NSF (GPH) V	Nater Co	onsumpt	ion:	58.6			
Gallons of Water per	Day .	192.40	_	Gallons of W	•	-	162.91	_			
Gallons of Water per	Year	70,226.00	_	Gallons of W	ater per	Year	59,462.15	_			
Cost of Water	TOTAL:	\$101.83		Cost of Wate	Γ	TOTAL:	\$86.22				
UNIDENTIFIED ENERGY COST OF	PRIMARY HEATI	ING IS CALCULATED U	SING TABLES AND	LOCAL RATES AT A 70° F	RISE FROM GI	ROUND TEMP:	GAS (mcf) ELECTRIC (k	wh} STEAM (psi)			
Local Gas Rate:	5. <i>50</i>	(typical 5.50 per n	ncf)								
YEARLY HEATING	COST: [	\$357.45	TOTAL	YEARLY HEA	ATING C	COST:	\$302.66	TOTAL			
Local Sewer Cost	: .0028 ˈ	(typical 2.1 per co	- of <u>or</u> .0028 per g	jallon)				-			
YEARLY SEWER CO	OST: [	\$196.63	TOTAL	YEARLY SE	WER CC	OST:	\$166.49	]TOTAL			
Energy Tota	ıl: [	\$2,393.27		Ener	gy Tota	l:	\$1,712.40	]			
Associated Chemi	cal Est.:	\$1,516.88	<del>.</del>	Associated	Chemic	cal Est.:	\$1,284.38	= <del>-</del>			

Total Cost to End User:

\$2,996.78

\$3,910.15

CALCULATIONS PREPARED FOR:         SAMPLE, HIGH TEMP DOOR MACHINE           ELECTRICAL         3 Phase: Kw=(1.73 x E x1 x PF)-k         1 Phase: Kw=(E x1 x PF)-k         KWH= 1000w/1 hr         E e voits le ampères         HP= 07457 Kw, Kw x1.341=hp           MODEL:         Champion D-H-1         MODEL:         ADS, HT-25 (Alt)           Racks Washed Per Day:         200         Racks Washed Per Day:         200           NSF Racks Per Hour:         72           Machine HRS/Operation:         3.64         Machine HRS/Operation:         2.78           Local Rate per KWH:         0.0725         Local Rate per KWH:         0.0725           (Us Average .0726)         Amp         Kw         HP         Amp         Kw         HP           Voltage:         208v/3ph         Pump Motor:							
MODEL: Champion D-H-1         MODEL: ADS, HT-25 (Alt)           Racks Washed Per Day:         200         Racks Washed Per Day:         200           NSF Racks Per Hour:         55         NSF Racks Per Hour:         72           Machine HRS/Operation:         3.64         Machine HRS/Operation:         2.78           Local Rate per KWH:         0.0725         Local Rate per KWH:         0.0725           (Us Average .0725)         Local Rate per KWH:         0.0725           (Us Average .0725)         Local Rate per KWH:         0.0725           (Us Average .0725)         Amp         Kw         HP           Voltage: 208v/3ph         Voltage: 208v/3ph         Pump Motor:         <							
Racks Washed Per Day:   200   Racks Washed Per Day:   200							
NSF Racks Per Hour:   3.64							
Machine HRS/Operation:         3.64         Machine HRS/Operation:         2.78           Local Rate per KWH:         0.0725         Local Rate per KWH:         0.0725           (US Average .0725)         Amp         Kw         HP           Voltage:         208v/3ph         W         HP           Voltage:         208v/3ph         W         HP           Pump Motor:         3         0.75         1         Pump Motor:         8         2.24         3           Pump Motor:         Pump Motor:         Pump Motor:         Pump Motor:         W         1							
Local Rate per KWH: (US Average .0725)							
Name							
Notage: 208v/3ph   Voltage: 208v/3ph   Voltage: 208v/3ph   Voltage: 208v/3ph   Pump Motor: 3 0.75 1 Pump Motor: 8 2.24 3 Pump Motor: Pum							
Voltage:         208v/3ph         Voltage:         Voltage:         208v/3ph         Voltage:							
Pump Motor:         3         0.75         1         Pump Motor:         8         2.24         3           Pump Motor:         Pump Motor: <td< td=""></td<>							
Pump Motor:							
Pump Motor: Conveyor Motor: Booster (built-in) Tank Heater: Tank Heater: Tank Heater: KWH  Daily Machine Cost  Sooster Heater Model: Voltage: 208 amp KWH: Tank Heater Tosily Booster Cost Daily Booster Cost Daily Machine & Booster Daily Machine & Booster Cost Per Month  Bouster Heater Motor:  Conveyor Motor: Booster (alternate) Tank Heater: T							
Conveyor Motor: Booster (built-in) Tank Heater: Tank Heater: Tank Heater: KWH  Daily Machine Cost  Soster Heater Model: Voltage: 208 amp Voltage: 208 amp Daily Booster Cost Daily Machine & Booster Daily Machine & Booster Cost Per Month  Soster Heater  Conveyor Motor: Booster (alternate) 13.5  Tank Heater: Tank Heater: KWH  Daily Machine Cost Soster Heater Model: S							
Booster (built-in) Tank Heater: Tank Heater: KWH  Daily Machine Cost  Booster Heater Model: Voltage: 208 amp Fig. 185 Daily Booster Cost Daily Machine & Booster Daily Machine & Booster Cost Per Month Electrical Cost Per Year  Booster (alternate) Tank Heater: Tank Heater: KWH  Daily Machine Cost Stank Heater: Tank Heater: Tank Heater: KWH  Daily Machine Cost Stank Heater: Tank Hea							
Tank Heater: Tank Heater: KWH  Daily Machine Cost  So.99  Daily Machine Cost  Soster Heater Model: Voltage: 208 amp Voltage: 40°							
KWH  Daily Machine Cost  \$0.99  Daily Machine Cost  \$3.17  Booster Heater Model:  Voltage: 208 amp  KWH:  7  Rise: 40°  Daily Booster Cost  Daily Booster Cost  Daily Machine & Booster  Cost Per Month  86.38  Electrical Cost Per Year  KWH  15.74  ADS B-13 Built-on  Voltage: 208 amp  KWH:  0  Rise: 40°  Daily Booster Cost  Daily Booster Cost  Daily Machine & Booster  \$3.17  Cost Per Month  \$96.42  Electrical Cost Per Year  \$1,036.56							
Daily Machine Cost\$0.99Daily Machine Cost\$3.17Booster Heater Model: Voltage: 208 amp Daily Booster Cost Daily Booster CostHatco C-7Booster Heater Model: Voltage: 208 amp Daily Booster CostADS B-13 Built-onDaily Booster Cost Daily Machine & Booster Cost Per Month\$1.85Daily Booster Cost Daily Machine & Booster Cost Per Month\$3.17Cost Per Month Electrical Cost Per Year\$1,036.56Electrical Cost Per Year\$1,157.02							
Booster Heater Model:Hatco C-7Booster Heater Model:ADS B-13 Built-onVoltage: 208 ampKWH:7Rise: 40°Voltage: 208 ampKWH:0Rise: 40°Daily Booster Cost\$1.85Daily Booster Cost\$0.00Daily Machine & Booster2.84Daily Machine & Booster\$3.17Cost Per Month86.38Cost Per Month\$96.42Electrical Cost Per Year\$1,036.56Electrical Cost Per Year\$1,157.02							
Voltage: 208 ampKWH:7Rise: 40°Voltage: 208 ampKWH:0Rise: 40°Daily Booster Cost\$1.85Daily Booster Cost\$0.00Daily Machine & Booster2.84Daily Machine & Booster\$3.17Cost Per Month86.38Cost Per Month\$96.42Electrical Cost Per Year\$1,036.56Electrical Cost Per Year\$1,157.02							
Voltage: 208 ampKWH:7Rise: 40°Voltage: 208 ampKWH:0Rise: 40°Daily Booster Cost\$1.85Daily Booster Cost\$0.00Daily Machine & Booster2.84Daily Machine & Booster\$3.17Cost Per Month86.38Cost Per Month\$96.42Electrical Cost Per Year\$1,036.56Electrical Cost Per Year\$1,157.02							
Daily Booster Cost\$1.85Daily Booster Cost\$0.00Daily Machine & Booster2.84Daily Machine & Booster\$3.17Cost Per Month86.38Cost Per Month\$96.42Electrical Cost Per Year\$1,036.56Electrical Cost Per Year\$1,157.02							
Daily Machine & Booster 2.84 Daily Machine & Booster \$3.17  Cost Per Month 86.38 Cost Per Month \$96.42  Electrical Cost Per Year \$1,036.56 Electrical Cost Per Year \$1,157.02							
Cost Per Month 86.38 Cost Per Month \$96.42  Electrical Cost Per Year \$1,036.56 Electrical Cost Per Year \$1,157.02							
MATER AND SEMEDUSAGE							
WATER AND SEWER USAGE CCF = 100 ft <sup>3</sup> CCF x 7.48 = gal. Gal. x .1337 = ft <sup>3</sup>							
Local Water Cost: .00145 Primary Heating Capacity Temp Set @ 140°							
(typical 1.09 ccf or .00145 per gallon) (GPH recover Rate:) 100							
NSF (GPH) Water Consumption: 65 NSF (GPH) Water Consumption: 58.6							
Gallons of Water per Day 236.60 Gallons of Water per Day 162.91							
Gallons of Water per Year 86,359.00 Gallons of Water per Year 59,462.15							
Cost of Water TOTAL: \$125.22 Cost of Water TOTAL: \$86.22							
UNIDENTIFIED ENERGY COST OF PRIMARY HEATING IS CALCULATED USING TABLES AND LOCAL RATES AT A 70° RISE FROM GROUND TEMP: GAS (mcf) ELECTRIC (kwh) STEAM (psi)							
Local Gas Rate: 5.50 (typical 5.50 per mcf)							
YEARLY HEATING COST: \$439.57 TOTAL YEARLY HEATING COST: \$302.66 TOTAL							
Local Sewer Cost: .0028 (typical 2.1 per ccf or .0028 per gallon)							
YEARLY SEWER COST: \$241.81 TOTAL YEARLY SEWER COST: \$166.49 TOTAL							
Energy Total: \$1,843.16 Energy Total: \$1,712.40							
Associated Chemical Est.: \$1,865.35 Associated Chemical Est.: \$1,284.38							
Total Cost to End User: \$3,708.51 Total Cost to End User: \$2,996.78							

#### COMPARISON FOR COMMERCIAL DISHMACHINES

041018.4-1038	COMPARISON FOR COMMERCIAL DISHMACHINES											
CALCULATIONS	PREPAR	ED FOR:		SAMPLE, I	HIGH TEM	P DOOR MACH	INE					
<u>ELECTRICAL</u>	3 Phase: Kw=(1	1.73 x E x l x PF)÷k 1	Phase: Kw=(E x I	x PF)÷k KWH= 1000w/1 hr E= vo	its I= amperes	HP= .07457 Kw, Kw	x 1.341=hp					
MODEL:	Cham	pion D-HB		M	ODEL:	ADS, HT-	25 (Alt)					
Racks Washed Per I	Оау:	200		Racks Washed Per Day:			200					
NSF Racks Per Hour: 55		_	NSF Rack	s Per Hoւ	ır:	72						
Machine HRS/Opera	ition:	3.64	<del></del>	Machine H	IRS/Oper	ation:	2.78					
Local Rate per KWH	:	0.0725	-	Local Rate	•	<b>∃</b> :	0.0725					
(US Average .0725)				(US Average	.0725)							
	<u>Amp</u>	<u>Kw</u>	<u> </u>		<u>Amp</u>	<u>Kw</u>	HP HP					
Voltage: 208v/3ph	3	0.75	1	Voltage: 208v/3ph		0.04						
Pump Motor:	3	0.75	1	Pump Motor:	8	2.24	3					
Pump Motor: Pump Motor:				Pump Motor: Pump Motor:								
Conveyor Motor:				Conveyor Motor:								
Booster (built-in)		9		Booster (alternate)		13.5						
Tank Heater:		3		Tank Heater:		10.0						
Tank Heater:				Tank Heater:								
KWH		12.746		KWH		15.738						
Daily Machine Cost \$3.36			_]	Daily Machine Cos	st	\$3.17	1					
Booster Heater Model: Built-in				Booster Heater Mo	odel:	ADS B-13 B	uilt-on					
Voltage: 208 amp	KWH:	0	Rise: 40°	Voltage: 208 amp	KWH:		Rise: 40°					
Daily Booster Cost		\$0.00	-	Daily Booster Cost \$0.00			<b>-</b>					
Daily Machine & Boo	ster	3.36	-	Daily Machine & Booster \$3.17			-					
Cost Per Month		102.20	_	Cost Per Month \$96.42			<b>*</b>					
Electrical Cost Pe	r Year	\$1,226.40		Electrical Cost Per Year \$1,157.02								
WATER AND SI	EWER (	JSAGE	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	37 = ft³							
Local Water Cost	.00145			Heating Capacity		Temp Set @	140°					
(typical 1.09 ccf or .00145	per gallon)		(GPH recover			. 0						
NSF (GPH) Water C	onsumpt	ion:	66	NSF (GPH) Water C	onsumpt	ion:	58.6					
Gallons of Water per	· Day	240.24	_	Gallons of Water per	Day	162.91	_					
Gallons of Water per	Year	87,687.60	<b></b>	Gallons of Water per	Year	59,462.15	<u></u>					
Cost of Water	TOTAL:	\$127.15		Cost of Water	TOTAL:	\$86.22						
UNIDENTIFIED ENERGY COST OF	PRIMARY HEAT	TING IS CALCULATED U	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM G	ROUND TEMP:	GAS (mcf) ELECTRIC (k)	wh} STEAM {psi}					
Local Gas Rate:	5. <i>50</i>	(typical 5.50 per r	ncf)									
YEARLY HEATING	COST:	\$446.33	TOTAL	YEARLY HEATING	COST:	\$302.66	TOTAL					
Local Sewer Cost	: .0028	(typical 2.1 per co	– of <u>or</u> .0028 per g	gallon)			-					
YEARLY SEWER CO	OST:	\$245.53	TOTAL	YEARLY SEWER CO	DST:	\$166.49	TOTAL					
Energy Total: \$2,045.41 Energy Total: \$1,712.40												
Associated Chemi	cal Est.:	\$1,894.05	<u></u>	Associated Chemi		\$1,284.38	4					
		<del></del>	_				<del>-</del>					

Total Cost to End User:

\$2,996.78

\$3,939.46

#### **COMPARISON FOR COMMERCIAL DISHMACHINES**

COMPARISON FOR COMMERCIAL DISHMACHINES											
CALCULATIONS	S PREPAR	ED FOR:		double/lowter	mp vs HI	GH TEMP DOOF	MACHINE				
<u>ELECTRICAL</u>	3 Phase: Kw=(1	I.73 x E x I x PF)÷k 1	Phase: Kw=(E x I	x PF)+k KWH= 1000w/1 hr E= vo	its I= ampere	s HP= .07457 Kw, Kw	x 1.341=hp				
MODEL:	Α	DS 5AG (d	ouble)	MOI	DEL:	ADS, HT-2	25 (alt)				
Racks Washed Per I	Day:	200	_	Racks Wa	shed Per	Day:	200				
NSF Racks Per Hou	r:	74	_	NSF Rack	s Per Ho	ur:	72				
Machine HRS/Operation: 2.70		_	Machine H	IRS/Ope	ration:	2.78					
Local Rate per KWH: 0.0725		_	Local Rate per KWH:			0.0725					
(US Average .0725)				(US Average .0725)							
	<u>Amp</u>	<u>Kw</u>	HP T	V II	<u>Amp</u>	<u>Kw</u>	<u>HP</u>				
Voltage: 208v,3ph	15	1.12	1.5	Voltage: 208v,3ph		2.24					
Pump Motor: Pump Motor:	15	1.12	1.5	Pump Motor: Pump Motor:	8	2.24	3				
Pump Motor:		1.12	1.5	Pump Motor:							
Conveyor Motor:				Conveyor Motor:							
Booster (built-in)				Booster (alternate)		13.5					
Tank Heater:				Tank Heater:							
Tank Heater:				Tank Heater:							
KWH		2.24		KWH		15.74					
Daily Machine Cost \$0.44 Daily Machine Cost \$3.17											
Booster Heater Model: None Needed Booster Heater Model: ADS B-13											
***************************************			Rise: 0°	Voltage: 208 amp	KWH		Rise: 40°				
Daily Booster Cost		\$0.00	_	Daily Booster Cost		\$0.00	•				
Daily Machine & Boo	ster	0.44	-	Daily Machine & Booster \$3.17			-				
Cost Per Month		13.38	=	Cost Per Month \$96.42			•				
Electrical Cost Pe	r Year	\$160.56		Electrical Cost Per Year \$1,157.0							
WATER AND S	EWER (	JSAGE	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	37 = ft³		1				
Local Water Cost		,	Primary	Heating Capacity		Temp Set @	140°				
(typical 1.09 ccf or .00145			(GPH recover								
NSF (GPH) Water C	onsumpt	ion:	118.4	NSF (GPH) Water C	onsump	tion:	61.2				
Gallons of Water per	<sup>-</sup> Day	319.68		Gallons of Water per	Day	170.14					
Gallons of Water per	Year	116,683.20	_	Gallons of Water per	Year	62,101.10	-				
Cost of Water	TOTAL:	\$169.19		Cost of Water	TOTAL:	\$90.05					
UNIDENTIFIED ENERGY COST O	F PRIMARY HEAT	TING IS CALCULATED U	- SING TABLES AND	LOCAL RATES AT A 70° RISE FROM G	ROUND TEMP:	GAS (mcf) ELECTRIC (ki	wh) STEAM (psi)				
Local Gas Rate:	5.50	(typical 5.50 per r	ncf)								
YEARLY HEATING COST: \$593.92 TOTAL YEARLY HEATING						\$316.09	TOTAL				
	Local Sewer Cost: .0028 (typical 2.1 per ccf or .0028 per gallon)										
YEARLY SEWER CO		\$326.71	TOTAL	YEARLY SEWER CO	DST:	\$173.88	TOTAL				
Energy Tota	al:	\$1,250.38	1	Energy Tota	ıl:	\$1,737.05					
Associated Chemi		\$2,941.12	.1	Associated Chemi			1				
			-				_				

Total Cost to End User:

\$3,078.43

\$4,191.50

# Conveyors 44"

#### **COMPARISON FOR COMMERCIAL DISHMACHINES**

			OR COM	MERCIAL DISHM	IACHIN	ES	
CALCULATION	S PREPAR	ED FOR:		SAMPLE, I	HIGH TEMP	CONVEYOR	
<u>ELECTRICAL</u>	3 Phase: Kw=(1	.73 x E x I x PF)+k 1	Phase: Kw=(E x I	x PF)÷k KWH= 1000w/1 hr E= vc	oits I= amperes	HP= .07457 Kw, Kw	x 1.341=hp
MODEL:	S	CT-44 (Ster	0)	M	ODEL:	ADS, A	\DC-44
Racks Washed Per	Day:	350	_	Racks Wa	Day:	350	
NSF Racks Per Hoเ	ır:	209	_	NSF Rack	r:	244	
Machine HRS/Opera	ation:	1.67	_	Machine H	ation:	1.43	
Local Rate per KWH	<del>1</del> :	0.0725	-		e per KWH	l:	0.0725
(US Average .0725)			(US Average	.0725)			
	Amp	<u>Kw</u>	<u>HP</u>		<u>Amp</u>	Kw	HP
Voltage: 208v,3ph		4.46		Voltage: 208v,3ph			
Pump Motor:	5	1.49	2	Pump Motor:	8	2.24	3
Pump Motor:				Pump Motor:	0.5	0.22	0.3
Pump Motor: Conveyor Motor:	0.5	0.19	0.25	Pump Motor: Conveyor Motor:	0.5	0.22	0.3
Booster (built-in)	0.0	0.15	0.20	Booster (alternate)	0.5	0.22	0.5
Tank Heater:		10.0	minimum	Tank Heater:		8.0	
Tank Heater:				Tank Heater:		2.2	
KWH		11.68		KWH		12.89	
Daily Machine Co	st	\$1.41		Daily Machine Co	st	\$1.34	<b>_</b>
Booster Heater M	lodel:	Hatco C-30		Booster Heater M	odel:	Hatco C-15	
Voltage: 208 amp	KWH:	30	Rise: 40°	Voltage: 208 amp	KWH:	15	Rise: 40°
Daily Booster Cost	•	\$3.63	•	Daily Booster Cost	•	\$1.56	
Daily Machine & Boo	oster	5.04	_	Daily Machine & Boo	ster	\$2.90	-
Cost Per Month		153.30	•	Cost Per Month		\$88.21	
Electrical Cost Po	er Year	\$1,839.60		Electrical Cost Pe	r Year	\$1,058.48	
WATER AND S	EWER L	JSAGE	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	37 = ft <sup>3</sup>		
Local Water Cost (typical 1.09 ccf or .00145			Primary I	Heating Capacity Rate:) 100	T	emp Set @	140°
NSF (GPH) Water 0	Consumpti	ion:	290	NSF (GPH) Water C	onsumpti	on:	120
Gallons of Water pe	r Day	484.30		Gallons of Water per	•	171.60	
Gallons of Water pe	r Year	176,769.50	•	Gallons of Water per	· · · · · · · · · · · · · · · · · · ·	62,634.00	_
Cost of Water	TOTAL:	\$256.32		Cost of Water	TOTAL:	\$90.82	
UNIDENTIFIED ENERGY COST C	F PRIMARY HEAT	ING IS CALCULATED US	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM G	GROUND TEMP: G	AS (mcf) ELECTRIC (F	cwh} STEAM (psi)
Local Gas Rate:	5.50	(typical 5.50 per n	ncf)				
YEARLY HEATING			TOTAL	YEARLY HEATING	COST:	\$318.81	TOTAL
Local Sewer Cos	t: .0028	(typical 2.1 per cc	- f <u>or</u> .0028 per (	gallon)			wins.
YEARLY SEWER C	OST:	\$494.95	TOTAL	YEARLY SEWER CO	OST:	\$175.38	TOTAL
Energy Tota	al:	\$3,490.63	]	Energy Tota	ıl:	\$1,643.48	
Associated Chem	ical Est.:	\$3,818.22		Associated Chemi	cal Est.:	\$1,352.89	_

\$7,308.85

**Total Cost to End User:** 

Total Cost to End User:

\$2,996.38

CALCULATIONS			- I V VIAII	SAMPLE, (		sanitizer CONVI	YOR
ELECTRICAL	3 Phase: Kw=(1	.73 x E x I x PF)÷k 1	Phase: Kw=(E x I	x PF)÷k KWH= 1000w/1 hr E= vo	lts I= amperes	HP= .07457 Kw, Kw x	1.341=hp
MODEL:	Н	obart, C44	Α	Mo	ODEL:	ADS, ADO	-44 (L)
Racks Washed Per I	Эау:	350		Racks Wa	shed Per	Day:	350
NSF Racks Per Hou	•	203	-	NSF Rack		-	244
Machine HRS/Opera	tion:	1.72	-	Machine H	IRS/Opera	ation:	1.43
Local Rate per KWH		0.0725	-	Local Rate	-		0.0725
(US Average .0725)			-	(US Average .	•		
	<u>Amp</u>	<u>Kw</u>	HP		<u>Amp</u>	<u>Kw</u>	HP
Voltage: 208v,3ph				Voltage: 208v,3ph			
Pump Motor:	5	1.51	2	Pump Motor:	8	2.27	3
Pump Motor:				Pump Motor:	0.5	0.23	0.3
Pump Motor:				Pump Motor:			
Conveyor Motor:	0.5	0.19	0.25	Conveyor Motor:	0.5	0.23	0.3
Booster (built-in)				Booster (alternate)			
Tank Heater:	·	15.0		Tank Heater:		8.0	
Tank Heater:				Tank Heater:		2.2	
KWH	-	16.70		KWH		12.92	
Daily Machine Co	st	\$2.08	-	Daily Machine Cos	st	\$1.34	
Booster Heater M	odel:	Hatco C-30		Booster Heater Me	odel:	None Neede	d
Voltage: 208 amp	KWH:	30	Rise: 40°	Voltage: 208 amp	KWH:	0	Rise: 0°
Daily Booster Cost		\$3.74	-	Daily Booster Cost		\$0.00	
Daily Machine & Boo	ster	5.82	-	Daily Machine & Boo	ster	\$1.34	
Cost Per Month		177.02	-	Cost Per Month		\$40.76	
Electrical Cost Pe	r Year	\$2,124.24		Electrical Cost Pe	r Year	\$489.09	
WATER AND SI	EWER L	<u>JSAGE</u>	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	37 = ft³		
Local Water Cost: (typical 1.09 ccf or .00145)			Primary I (GPH recover	Heating Capacity Rate:) 100	•	Temp Set @	140°
NSF (GPH) Water C	onsumpt	ion:	300	NSF (GPH) Water C	onsumpt	ion:	120
Gallons of Water per	· Day	516.00		Gallons of Water per	Day	171.60	
Gallons of Water per	-	188,340.00	-	Gallons of Water per	Year	62,634.00	
Cost of Water	TOTAL:	\$273.09	Andrew Co.	Cost of Water	TOTAL:	\$90.82	
UNIDENTIFIED ENERGY COST OF	PRIMARY HEAT	TING IS CALCULATED U	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM G	ROUND TEMP:	GAS {mcf} ELECTRIC {kv	nh) STEAM (psi)
Local Gas Rate:	5.50	(typical 5.50 per r	<del>-1</del>				
YEARLY HEATING	COST:	\$958.65	TOTAL	YEARLY HEATING	COST:	\$318.81	TOTAL
Local Sewer Cost	: .0028	(typical 2.1 per co	_	gallon)			
YEARLY SEWER CO	OST:	\$527.35	TOTAL	YEARLY SEWER CO	OST:	\$175.38	TOTAL
Energy Tota	al:	\$3,883.34		Energy Tota	ıl:	\$1,074.09	
Associated Chemi		\$4,068.14	J	Associated Chemi		\$1,578.75	I
Total Cost to En		\$7,951.48	_	Total Cost to End		\$2,652.85	
. J.S. JOJE W EIN		Ŧ-,	<del></del>				•

CALCULATIONS				SAMPLE, F		P CONVEYOR	
<u>ELECTRICAL</u>	3 Phase: Kw=(1	1.73 x E x I x PF)÷k 1	Phase: Kw=(E x I	x PF)+k KWH= 1000w/1 hr E= vol	its I= amperes	s HP= .07457 Kw, Kw :	k 1,341=hp
MODEL:		obart, C44			DDEL:	ADS, A	
Racks Washed Per I	Day:	350		Racks Was	shed Per	Day:	350
NSF Racks Per Hou	r:	203	-	NSF Racks		-	244
Machine HRS/Opera	ation:	1.72	-	Machine H	RS/Oper	ation:	1.43
Local Rate per KWH		0.0725	-	Local Rate	•		0.0725
(US Average .0725)	(US Average .0725)						
	<u>Amp</u>	<u>Kw</u>	<u>HP</u>		<u>Amp</u>	<u>Kw</u>	<u>HP</u>
Voltage: 208v,3ph				Voltage: 208v,3ph			
Pump Motor:	5	1.49	2	Pump Motor:	8	2.24	3
Pump Motor:				Pump Motor:	0.5	0.22	0.3
Pump Motor:				Pump Motor:			
Conveyor Motor:	0.5	0.19	0.25	Conveyor Motor:	0.5	0.22	0.3
Booster (built-in)				Booster (alternate)			
Tank Heater:		15.0		Tank Heater:		8.0	
Tank Heater:				Tank Heater:		2.2	
KWH		16.68		KWH		12.89	
Daily Machine Co	st	\$2.08		Daily Machine Cos	st	\$1.34	
Booster Heater M	odel:	Hatco C-30		Booster Heater Mo	odel:	Hatco C-15	
Voltage: 208 amp	KWH:	30	Rise: 40°	Voltage: 208 amp	KWH	15	Rise: 40°
Daily Booster Cost		\$3.74		Daily Booster Cost		\$1.56	•
Daily Machine & Boo	ster	5.82	•	Daily Machine & Boo	ster	\$2.90	•
Cost Per Month		177.02		Cost Per Month		\$88.21	
Electrical Cost Pe	r Year	\$2,124.24		Electrical Cost Pe	r Year	\$1,058.48	
WATER AND SI		<u>JSAGE</u>	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .133	37 = ft³		
Local Water Cost: (typical 1.09 ccf or .00145)			Primary I (GPH recover	Heating Capacity Rate:) 100	,	Temp Set @	140°
NSF (GPH) Water C	onsumpt	ion:	300	NSF (GPH) Water Co	onsump	tion:	120
Gallons of Water per	-	516.00		Gallons of Water per	-	171.60	
Gallons of Water per	Year	188,340.00	•	Gallons of Water per	Year	62,634.00	•
Cost of Water	TOTAL:		]	Cost of Water	TOTAL:	\$90.82	
UNIDENTIFIED ENERGY COST OF	PRIMARY HEAT	FING IS CALCULATED US	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM GI	ROUND TEMP:	GAS (mcf) ELECTRIC (kv	vh) STEAM (psi)
Local Gas Rate:	5 <i>.50</i>	(typical 5.50 per n	ncf)				
YEARLY HEATING	COST:	\$958.65	TOTAL	YEARLY HEATING (	COST:	\$318.81	TOTAL
Local Sewer Cost	: .0028	(typical 2.1 per cc	f <u>or</u> .0028 per (	gallon)		the second contract of the	1
YEARLY SEWER CO	CTRC	\$527.35	TOTAL	YEARLY SEWER CO	OST:	\$175.38	TOTAL
Energy Tota	al:	\$3,883.34		Energy Tota	l:	\$1,643.48	
Associated Chemi		\$4,068.14	1	Associated Chemic		\$1,352.89	1
Total Cost to End		\$7,951.48	-	Total Cost to End		\$2,996.38	•
		4-1-2-1-2	-			Y-1-00100	

#### COMPARISON FOR COMMERCIAL DISHMACHINES

	COMPA	ARISON FO	OR COM	MERCIAL DISHM	ACHIN	ES	
CALCULATION	S PREPARI	ED FOR:		SAMPLE, I	HIGH TEM	P CONVEYOR	
<u>ELECTRICAL</u>	3 Phase: Kw=(1	.73 x E x I x PF)÷k 1 !	Phase: Kw=(E x I	x PF)÷k KWH= 1000w/1 hr E= vo	olts I= amperes	HP= .07457 Kw, Kw	x 1.341=hp
MODEL:	H	obart, C44/	4	M	ODEL:	ADS, A	DC-44
Racks Washed Per	Day:	350		Racks Wa	shed Per	Day:	350
NSF Racks Per Hou	ır:	203		NSF Rack	s Per Hou	ır:	244
Machine HRS/Opera	ation:	1.72	•	Machine H	lRS/Oper	ation:	1.43
Local Rate per KWH	<del>1</del> :	0.0725		Local Rate	e per KWF	H:	0.0725
(US Average .0725)				(US Average	.0725)		
	Amp	<u>Kw</u>	<u>HP</u>	,	<u>Amp</u>	<u>Kw</u>	HP
Voltage: 208v,3ph		1 12		Voltage: 208v,3ph			
Pump Motor:	5	1.10	2	Pump Motor:	8	2.24	3
Pump Motor:				Pump Motor:	0.5	0.22	0.3
Pump Motor:	0.5		0.05	Pump Motor:			
Conveyor Motor:	0.5	0.19	0.25	Conveyor Motor:	0.5	0.22	0.3
Booster (built-in)		~ ^ ^ ^		Booster (alternate)			
Tank Heater:		GAS		Tank Heater:		8.0	
Tank Heater:		4.00		Tank Heater:		2.2	•
KWH		1.29		KWH		12.89	
Daily Machine Co		\$0.16		Daily Machine Co		\$1.34	
Booster Heater M		Hatco Gas E		Booster Heater M		Hatco C-15	
Voltage: 208 amp	KWH:		Rise: 40°	Voltage: 208 amp	KWH:		Rise: 40°
Daily Booster Cost	,	\$0.00		Daily Booster Cost		\$1.56	•
Daily Machine & Boo	oster	0.16		Daily Machine & Boo	ster	\$2.90	_
Cost Per Month		4.87	1	Cost Per Month		\$88.21	7
Electrical Cost Pe	er Year	\$58.44		Electrical Cost Pe	r Year	\$1,058.48	]
WATER AND S	<u>EWER L</u>	JSAGE	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	37 = ft³		
Local Water Cost	: .00145		Primary I	leating Capacity	-	Temp Set @	140°
(typical 1.09 ccf or .00145	per gallon)		(GPH recover	Rate:) 100		. )	
NSF (GPH) Water C	onsumpti	ion:	300	NSF (GPH) Water C	onsumpt	ion:	120
Gallons of Water pe	r Day	516.00		Gallons of Water per	<sup>.</sup> Day	171.60	
Gallons of Water pe	r Year	188,340.00	•	Gallons of Water per	Year	62,634.00	•
Cost of Water	TOTAL:	\$273.09		Cost of Water	TOTAL:	\$90.82	
UNIDENTIFIED ENERGY COST O	F PRIMARY HEAT	ING IS CALCULATED US	ING TABLES AND	LOCAL RATES AT A 70° RISE FROM G	ROUND TEMP: (	GAS (mcf) ELECTRIC (k	vh} STEAM {psi}
Local Gas Rate:	5.50	(typical 5.50 per m	ncf)				
YEARLY HEATING	COST:	\$958.65	TOTAL	YEARLY HEATING	COST:	\$318.81	TOTAL
Local Sewer Cos	t: .0028 ໍ	(typical 2.1 per cct	f <u>or</u> .0028 per g	gallon)		Hit in the second secon	•
YEARLY SEWER C	OST: [	\$527.35	TOTAL	YEARLY SEWER CO	OST:	\$175.38	TOTAL
Energy / Less Ga	as Fees:	\$1,817.54		Energy Tota	ıi:	\$1,643.48	
Associated Chem	ical Est.:	\$4,068.14	-	Associated Chemi	cal Est.:	\$1,352.89	•

Total Cost to End User:

\$2,996.38

\$5,885.68

CALCULATIONS PREPARE	ED FOR:	•	SAMPLE, H	IIGH TEM	CONVEYOR	
ELECTRICAL 3 Phase: Kw=(1,	.73 x E x I x PF)÷k 1	Phase: Kw=(E x I :	x PF)÷k KWH= 1000w/1 hr E= vol	ts I= amperes	HP= .07457 Kw, Kw x	: 1.341=hp
MODEL: Ho	obart, C44	AW	MC	DDEL:	ADS, A	DC-44
Racks Washed Per Day:	350		Racks Was	shed Per	Day:	350
NSF Racks Per Hour:	126	-	NSF Racks	s Per Hou	r:	244
Machine HRS/Operation:	2.78	•	Machine H	RS/Opera	ation:	1.43
Local Rate per KWH:	0.0725	•	Local Rate	per KWH	l:	0.0725
(US Average .0725)		•	(US Average .0725)			
<u>Amp</u>	<u>Kw</u>	HP	_	<u>Amp</u>	<u>Kw</u>	<u>HP</u>
Voltage: 208v,3ph			Voltage: 208v,3ph			
Pump Motor: 5	1.49	2	Pump Motor:	8	2.24	3
Pump Motor:			Pump Motor:	0.5	0.22	0.3
Pump Motor:	2.45		Pump Motor:		0.00	
Conveyor Motor: 0.5	0.19	0.25	Conveyor Motor:	0.5	0.22	0.3
Booster (built-in)	45.0		Booster (alternate)		0.0	
Tank Heater:	15.0		Tank Heater: Tank Heater:	•	8.0 2.2	
Tank Heater:	16.68		KWH		12.89	
· ·	\$3.36	]	Daily Machine Cos	<b>-</b> 4	\$1.34	
Daily Machine Cost	•		-		,	
Booster Heater Model:	Hatco C-12	*	Booster Heater Mo		Hatco C-15	
Voltage: 208 amp KWH:	12	Rise: 40°	Voltage: 208 amp	KWH:		Rise: 40°
Daily Booster Cost	\$2.42	-	Daily Booster Cost		\$1.56	•
Daily Machine & Booster	5.78	_	Daily Machine & Boo	ster	\$2.90	
Cost Per Month	175.80	1	Cost Per Month	w Voor	\$88.21	1
Electrical Cost Per Year	\$2,109.60	005 400 83	Electrical Cost Pe		\$1,058.48	
WATER AND SEWER L	JSAGE		CCF x 7.48 = gal. Gal. x .13			
Local Water Cost: .00145 (typical 1.09 ccf or .00145 per gallon)		Primary I (GPH recover	Heating Capacity Rate:) 100	_	Temp Set @	140°
NOT (ODII) Water Comment						
NSF (GPH) Water Consumpti	ion:	120	NSF (GPH) Water C	onsumpt	ion:	120
NSF (GPH) Water Consumpti Gallons of Water per Day	ion: 333.60	120	, ,	•	ion: 171.60	120
Gallons of Water per Day		120	NSF (GPH) Water C Gallons of Water per Gallons of Water per	Day	171.60	120
• • •	333.60	<u>120</u> -	Gallons of Water per	Day		120
Gallons of Water per Day Gallons of Water per Year	333.60 121,764.00 \$176.56	-	Gallons of Water per Gallons of Water per Cost of Water	Day Year TOTAL:	171.60 62,634.00 \$90.82	
Gallons of Water per Day Gallons of Water per Year Cost of Water TOTAL:  UNIDENTIFIED ENERGY COST OF PRIMARY HEAT Local Gas Rate: 5.50	333.60 121,764.00 \$176.56 TING IS CALCULATED U (typical 5.50 per r	SING TABLES AND	Gallons of Water per Gallons of Water per Cost of Water	Day Year TOTAL:	171.60 62,634.00 \$90.82 GAS (mcf) ELECTRIC (kg	wh) STEAM (psi)
Gallons of Water per Day Gallons of Water per Year Cost of Water TOTAL:  UNIDENTIFIED ENERGY COST OF PRIMARY HEAT  Local Gas Rate: 5.50 YEARLY HEATING COST:	333.60 121,764.00 \$176.56 ING IS CALCULATED U (typical 5.50 per r \$619.78	SING TABLES AND	Gallons of Water per Gallons of Water per Cost of Water LOCAL RATES AT A 70° RISE FROM G YEARLY HEATING (	Day Year TOTAL:	171.60 62,634.00 \$90.82	
Gallons of Water per Day Gallons of Water per Year Cost of Water TOTAL:  UNIDENTIFIED ENERGY COST OF PRIMARY HEAT Local Gas Rate: 5.50 YEARLY HEATING COST: Local Sewer Cost: .0028	333.60 121,764.00 \$176.56 ING IS CALCULATED U (typical 5.50 per r \$619.78 (typical 2.1 per co	sing tables and ncf) TOTAL	Gallons of Water per Gallons of Water per Cost of Water LOCAL RATES AT A 70° RISE FROM G YEARLY HEATING (	Day Year TOTAL: ROUND TEMP: 0	171.60 62,634.00 \$90.82 GAS (mcf) ELECTRIC (kg	wh) STEAM (psi)
Gallons of Water per Day Gallons of Water per Year Cost of Water TOTAL:  UNIDENTIFIED ENERGY COST OF PRIMARY HEAT  Local Gas Rate: 5.50 YEARLY HEATING COST:	333.60 121,764.00 \$176.56 ING IS CALCULATED U (typical 5.50 per r \$619.78	SING TABLES AND	Gallons of Water per Gallons of Water per Cost of Water LOCAL RATES AT A 70° RISE FROM G YEARLY HEATING (	Day Year TOTAL: ROUND TEMP: 0	171.60 62,634.00 \$90.82 GAS (mcf) ELECTRIC (kg	wh) STEAM (psi)
Gallons of Water per Day Gallons of Water per Year Cost of Water TOTAL:  UNIDENTIFIED ENERGY COST OF PRIMARY HEAT  Local Gas Rate: 5.50 YEARLY HEATING COST: Local Sewer Cost: .0028	333.60 121,764.00 \$176.56 ING IS CALCULATED U (typical 5.50 per r \$619.78 (typical 2.1 per co	sing tables and ncf) TOTAL	Gallons of Water per Gallons of Water per Cost of Water LOCAL RATES AT A 70° RISE FROM G YEARLY HEATING (	Day Year TOTAL: ROUND TEMP: 0 COST: DST:	171.60 62,634.00 \$90.82 GAS (mcf) ELECTRIC (kg	wh) STEAM (psi)
Gallons of Water per Day Gallons of Water per Year Cost of Water  UNIDENTIFIED ENERGY COST OF PRIMARY HEAT  Local Gas Rate: 5.50 YEARLY HEATING COST: Local Sewer Cost: .0028 YEARLY SEWER COST:	333.60 121,764.00 \$176.56 ING IS CALCULATED U (typical 5.50 per r \$619.78 (typical 2.1 per co \$340.94	sing tables and ncf) TOTAL	Gallons of Water per Gallons of Water per Cost of Water LOCAL RATES AT A 70° RISE FROM G YEARLY HEATING ( gallon) YEARLY SEWER CO	Day Year TOTAL: ROUND TEMP: 0 COST: DST:	171.60 62,634.00 \$90.82 GAS (mcf) ELECTRIC (kg \$318.81 \$175.38	wh) STEAM (psi)

#### **COMPARISON FOR COMMERCIAL DISHMACHINES**

			COMPARISON FOR COMMERCIAL DISHMACHINES  CALCULATIONS PREPARED FOR: SAMPLE, Chemical Sanitizer CONVEYOR										
			Phase: Kw=(E x I	x PF)+k KWH= 1000w/1 hr E= vol									
MODEL:		art, C44AV			DDEL:	ADS, ADO							
Racks Washed Per D	ay:	350		Racks Was	shed Per	Day:	350						
NSF Racks Per Hour	:	126	-	NSF Racks		-	244						
Machine HRS/Operat	tion:	2.78	-	Machine H	RS/Oper	ation:	1.43						
Local Rate per KWH: (US Average .0725)	Local Rate per KWH: 0.0725 (US Average .0725)		-	Local Rate per KWH: (US Average .0725)			0.0725						
	<u>Amp</u>	Kw	HP	_	<u>Amp</u>	Kw	HP						
Voltage: 208v,3ph				Voltage: 208v,3ph									
Pump Motor:	5	1.49	2	Pump Motor:	88	2.24	3						
Pump Motor:				Pump Motor:	0.5	0.22	0.3						
Pump Motor:		0.40	0.05	Pump Motor:		0.00							
Conveyor Motor:	0.5	0.19	0.25	Conveyor Motor:	0.5	0.22	0.3						
Booster (built-in) Tank Heater:		15.0		Booster (alternate) Tank Heater:		8.0							
Tank Heater:		13.0		Tank Heater:		2.2							
KWH		16.68		KWH		12.89							
Daily Machine Cos	et .	\$3.36	_	Daily Machine Cos	±f	\$1.34							
Booster Heater Mo		None Neede	ad	Booster Heater Mo		None Neede	vd.						
Voltage: 208 amp	KWH:		Rise: 0°	Voltage: 208 amp	KWH:		Rise: 0°						
Daily Booster Cost	IXVVII.	\$0.00	-	Daily Booster Cost	IXVII.	\$0.00							
Daily Machine & Boos	ster	3.36	-	Daily Machine & Boo	ster	\$1.34	•						
Cost Per Month		102.20	-	Cost Per Month	0.01	\$40.76	•						
Electrical Cost Per	r Year	\$1,226.40	]	Electrical Cost Pe	r Year	\$489.09	]						
WATER AND SE	IMED I		CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .133		F 1 1 4 4 5 1 1 5 5 5 7 5 7 7 7 8	J						
Local Water Cost:		JOAGL				Tamor Cat @	4.400						
(typical 1.09 ccf or .00145 p			(GPH recover	Heating Capacity Rate:) 100		Temp Set @	140°						
NSF (GPH) Water Co	onsumpt	ion:	120	NSF (GPH) Water Co	onsumpt	ion:	120						
Gallons of Water per	Day	333.60	_	Gallons of Water per	Day	171.60							
Gallons of Water per	Year	121,764.00	_	Gallons of Water per	Year	62,634.00	-						
Cost of Water	TOTAL:	\$176.56		Cost of Water	TOTAL:	\$90.82							
UNIDENTIFIED ENERGY COST OF	PRIMARY HEAT	TING IS CALCULATED U	- SING TABLES AND	LOCAL RATES AT A 70° RISE FROM G	ROUND TEMP: (	GAS (mcf) ELECTRIC (kv	vh) STEAM (psi)						
Local Gas Rate: 5	.50	(typical 5.50 per r	ncf)										
YEARLY HEATING C	OST:	\$619.78	TOTAL	YEARLY HEATING (	COST:	\$318.81	TOTAL						
Local Sewer Cost:	.0028	(typical 2.1 per co	- :f <u>or</u> .0028 per (	gallon)		The second secon	•						
YEARLY SEWER CO	ST:	\$340.94	TOTAL	YEARLY SEWER CO	OST:	\$175.38	TOTAL						
Energy Total	1:	\$2,363.68	-	Energy Tota	l:	\$1,074.09							
Associated Chemic	al Est.:	\$3,069.18	<b>-</b>	Associated Chemic	cal Est.:	\$1,578.75							

Total Cost to End User:

\$2,652.85

\$5,432.86

#### COMPARISON FOR COMMERCIAL DISHMACHINES

	COMP	ARISON FO	OR COM	MERCIAL DISHM	ACHINI	ES	
CALCULATION	S PREPAR	ED FOR:		SAMPLE, I	HIGH TEMP	CONVEYOR	
<u>ELECTRICAL</u>	3 Phase: Kw=(1	1,73 x E x I x PF)÷k 1	Phase: Kw=(E x I	x PF)÷k KWH= 1000w/1 hr E= vc	olts I= amperes	HP= .07457 Kw, Kw	x 1.341=hp
MODEL:	H	obart, CRS	5-86A	M	ODEL:	ADS, A	\DC-44
Racks Washed Per	Day:	350		Racks Wa	shed Per	Day:	350
NSF Racks Per Hou	ır:	248	_	NSF Rack	s Per Hou	r:	244
Machine HRS/Opera	ation:	1.41	_	Machine H	lRS/Opera	ation:	1.43
Local Rate per KWH	<b>l</b> :	0.0725	_	Local Rate per KWH:			0.0725
(US Average .0725)				(US Average	.0725)		
	Amp	<u>Kw</u>	<u>HP</u>	·	<u>Amp</u>	<u>Kw</u>	<u>HP</u>
Voltage: 208v,3ph				Voltage: 208v,3ph			
Pump Motor:	5	1.49	2	Pump Motor:	8	2.24	3
Pump Motor: Pump Motor:	5	1.49	2	Pump Motor:	0.5	0.22	0.3
Conveyor Motor:	0.5	0.19	0.25	Pump Motor: Conveyor Motor:	0.5	0.22	0.3
Booster (built-in)	0.0	0.10	0.20	Booster (alternate)	0.5	0.22	0.5
Tank Heater:		15.0		Tank Heater:		8.0	
Tank Heater:		15.0		Tank Heater:		2.2	
KWH		33.17		KWH		12.89	
Daily Machine Co	st	\$3.39	1	Daily Machine Co	st	\$1.34	<b>_</b>
Booster Heater M	odel:	Hatco C-27		Booster Heater M	odel:	Hatco C-15	
Voltage: 208 amp	KWH:	27	Rise: 40°	Voltage: 208 amp	KWH:	15	Rise: 40°
Daily Booster Cost		\$2.76	-	Daily Booster Cost		\$1.56	_
Daily Machine & Boo	oster	6.15	•	Daily Machine & Boo	ster	\$2.90	
Cost Per Month		187.06	-	Cost Per Month		\$88.21	
Electrical Cost Pe	er Year	\$2,244.72		Electrical Cost Pe	r Year	\$1,058.48	\ \ -
WATER AND S	EWER L	<u>JSAGE</u>	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	37 = ft³		
Local Water Cost (typical 1.09 ccf or .00145			Primary   (GPH recover	Heating Capacity Rate:) 100	T	emp Set @	140°
NSF (GPH) Water C	onsumpt	ion:	278	NSF (GPH) Water C	onsumpti	ion:	120
Gallons of Water pe	r Day	391.98		Gallons of Water per	Day	171.60	
Gallons of Water pe	r Year	143,072.70	-	Gallons of Water per	Year	62,634.00	_
Cost of Water	TOTAL:	\$207.46		Cost of Water	TOTAL:	\$90.82	
UNIDENTIFIED ENERGY COST O	F PRIMARY HEAT	ING IS CALCULATED US	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM G	ROUND TEMP: G	AS {mcf} ELECTRIC {i	wh) STEAM (psi)
Local Gas Rate:	5.50	(typical 5.50 per n	ncf)				
YEARLY HEATING	COST:	\$728.24	TOTAL	YEARLY HEATING	COST:	\$318.81	TOTAL
Local Sewer Cost		(typical 2.1 per cc	•	gallon)			•••
YEARLY SEWER C	OST:	\$400.60	TOTAL	YEARLY SEWER CO	DST:	\$175.38	TOTAL
Energy Tota		\$3,581.02	]	Energy Tota		\$1,643.48	
Associated Chem	ical Est.:	\$3,090.37		Associated Chemi	cal Est.:	\$1,352.89	_

Total Cost to End User:

\$2,996.38

\$6,671.39

MODEL:   Jackson, ES4400   MODEL:   ADS, ADC-44	CALCULATION				VIMERCIAL DISHMACHINES  SAMPLE, HIGH TEMP CONVEYOR				
MODEL:				Phase: Kw=(E x I				c 1.341=hp	
NSF Racks Per Hour:   248   NSF Racks Per Hour:   244   Machine HRS/Operation:   1.41   Machine HRS/Operation:   1.43   Local Rate per KWH:   0.0725   Local Rate:   0.0725   Loca									
NSF Racks Per Hour:   248   Machine HRS/Operation:   1.41   Machine HRS/Operation:   1.43	Racks Washed Per	———— Dav:	350		Racks Wa	shed Per	Day:	350	
Local Rate per KWH: (US Average .0725)		-	248	-			-	244	
Mamp   Kw   HP   Voltage: 208v,3ph   Voltage: 208v,3ph   Pump Motor:   5   1.49   2   Pump Motor:   0.5   0.22   0.3   Pump Motor:   0.5   0.19   0.25   Conveyor Motor:   0.5   0.22   0.3   Pump Motor:   0.5   0.19   0.25   Conveyor Motor:   0.5   0.22   0.3   Pump Motor:   0.5   0.22   Pump Motor:   0.5   0.5   Pump Motor:   0.5   0.5   Pump Motor:   0.5   0	Machine HRS/Opera	ation:	1.41	<b></b>	Machine H	RS/Oper	ation:	1.43	
Voltage: 208v,3ph   Voltage: 208v,3ph   Pump Motor: 5   1.49   2   Pump Motor: 0.5   0.22   0.3   Pump Motor: 0.5   0.22   0.3   Pump Motor: 0.5   0.22   0.3   Pump Motor: 0.5   0.5   0.22	Local Rate per KWH	<del>l</del> :	0.0725	-		· ·		0.0725	
Voltage: 208v,3ph	(US Average .0725)			_	(US Average	0725)			
Pump Motor:		Amp	<u>Kw</u>	<u>HP</u>	_	<u>Amp</u>	<u>Kw</u>	<u>HP</u>	
Pump Motor:	Voltage: 208v,3ph				Voltage: 208v,3ph				
Pump Motor:   Conveyor Motor:   O.5   O.19   O.25   Booster (built-in)	Pump Motor:	5	1.49	2	· · · · · · · · · · · · · · · · · · ·	8	2.24	3	
Conveyor Motor:   0.5   0.19   0.25   Conveyor Motor:   Booster (built-in)   Booster (built-in)   Booster (alternate)   Booster (a	•				, , , , , , , , , , , , , , , , , , ,	0.5	0.22	0.3	
Booster (built-in)	•				'				
Tank Heater: Tan	•	0.5	0.19	0.25		0.5	0.22	0.3	
Tank Heater:   Tank Heater:   2.2	· · · · · · · · · · · · · · · · · · ·		45.0	<u> </u>	· · · · · · · · · · · · · · · · · · ·				
NSF (GPH) Water Consumption:   234   NSF (GPH) Water Consumption:   234   Silons of Water per Day Gallons of Water per Day Gallons of Water per Year TOTAL:   120,428.10   Silons of Water per Year Cost of Water   TOTAL:   120,428.10   Silons of Water per Year Silons of			15.0	<u> </u>	<b>-</b>				
Daily Machine Cost   \$1.70   Daily Machine Cost   \$1.34			46.69		L				
Notage: 208 amp   KWH: 24   Rise: 40°   Voltage: 208 amp   KWH: 15   Rise: 40°   Notage: 208 amp   KWH: 15   Notage: 208 amp   Notage: 208 amp   KWH: 15   Notage: 208 amp		4		_		-4			
Voltage: 208 amp         KWH:         24         Rise: 40°         Voltage: 208 amp         KWH:         15         Rise: 40°           Daily Booster Cost         \$2.45         Daily Booster Cost         \$1.56           Daily Machine & Booster         4.15         Daily Machine & Booster         \$2.90           Cost Per Month         \$88.21         \$88.21           Electrical Cost Per Year         \$1,514.76         Electrical Cost Per Year         \$1,058.48           WATER AND SEWER USAGE         CCF = 100 ft³         CCF x 7.48 = gal. Gal. x .1337 = ft³           Local Water Cost: .00145 (typical 1.09 ccf or .00145 per gallon)         Primary Heating Capacity         Temp Set @ 140°           NSF (GPH) Water Consumption:         234         NSF (GPH) Water Consumption:         120           Gallons of Water per Day         329.94         Gallons of Water per Day         171.60           Gallons of Water per Year         62,634.00         Cost of Water         TOTAL:         \$90.82           Unidentified Energy cost of Primary Heating is calculated using Tables and Call Rates at a 70° rise From Ground Temp: Gas (mice) Electric (win) STEAM (psi)           Local Gas Rate: 5.50         (typical 5.50 per mcf)         YEARLY HEATING COST:         \$318.81         TOTAL           Local Sewer Cost: .0	•		·		•				
Daily Booster Cost         \$2.45         Daily Booster Cost         \$1.56           Daily Machine & Booster         4.15         Daily Machine & Booster         \$2.90           Cost Per Month         126.23         Cost Per Month         \$88.21           Electrical Cost Per Year         \$1,514.76         Electrical Cost Per Year         \$1,058.48           WATER AND SEWER USAGE         CCF = 100 ft³         CCF × 7.48 = gal. Gal. x. 1337 = ft³         Temp Set @ 140°           Local Water Cost: .00145 (typical 1.09 ccf or .00145 per gallon)         Primary Heating Capacity         Temp Set @ 140°           NSF (GPH) Water Consumption:         234         NSF (GPH) Water Consumption:         120           Gallons of Water per Day         329.94         Gallons of Water per Day         171.60           Gallons of Water per Year         120,428.10         Gost of Water TOTAL:         \$90.82           UNIDENTIFIED ENERGY COST OF PRIMARY HEATING IS CALCULATED USING TABLES AND LOCAL RATES AT A 70° RISE FROM GROUND TEMF: GAS (mer) ELECTRIC (whi) STEAM (psi)           Local Gas Rate: 5.50         (typical 5.50 per mcf)           YEARLY HEATING COST:         \$612.98         TOTAL         YEARLY HEATING COST:         \$318.81         TOTAL           Local Sewer Cost: .0028         \$337.20         TOTAL									
Daily Machine & Booster   Cost Per Month   126.23   Cost Per Month   \$88.21	· · · · · · · · · · · · · · · · · · ·	KWH:		_Rise: 40°	•	KWH:		Rise: 40°	
Cost Per Month   126.23	•			<del></del>	•			-	
Copy	•	oster		_	•	ster			
WATER AND SEWER USAGE Local Water Cost: .00145 (typical 1.09 ccf or .00145 per gallon)  NSF (GPH) Water Consumption:  234  NSF (GPH) Water Consumption:  234  Sallons of Water per Day Gallons of Water per Year Cost of Water per Year Cost of Water  Cost of Water  TOTAL:  \$174.62  \$175.38				3		V		1	
Local Water Cost: .00145 (typical 1.09 ccf or .00145 per gallon)  NSF (GPH) Water Consumption:  234 NSF (GPH) Water Consumption:  Callons of Water per Day Gallons of Water per Year Gallons of Water per Year Cost of Water  TOTAL:  120  120  120  121  120  120  120  12	Electrical Cost Pe	er year	\$1,514.76		Electrical Cost Pe	r Year	\$1,058.48	ļ	
NSF (GPH) Water Consumption:  234 NSF (GPH) Water Consumption:  Gallons of Water per Day Gallons of Water per Day Gallons of Water per Year Cost of Water  TOTAL:  \$174.62  \$174.62  \$234 NSF (GPH) Water Consumption:  Gallons of Water per Day Gallons of Water per Day Gallons of Water per Year Cost of Water  TOTAL:  \$174.62  \$234 NSF (GPH) Water Consumption:  Gallons of Water per Day Gallons of Water per Day Gallons of Water per Year Cost of Water  TOTAL:  \$174.62  \$234 NSF (GPH) Water Consumption:  Gallons of Water per Day Gallons of Water pe	<u>WATER AND S</u>	<u>EWER L</u>	<u>JSAGE</u>	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	37 = ft³			
Gallons of Water per Day Gallons of Water per Year Gallons of Water per Year Cost of Water TOTAL: \$174.62 Cost of Water Cost of Water  Cost of Water  Cost of Water TOTAL: \$174.62 Cost of Water TOTAL: \$90.82  UNIDENTIFIED ENERGY COST OF PRIMARY HEATING IS CALCULATED USING TABLES AND LOCAL RATES AT A 70° RISE FROM GROUND TEMP: GAS (mcf) ELECTRIC (kwh) STEAM (psi)  Local Gas Rate: 5.50 YEARLY HEATING COST: \$612.98 TOTAL YEARLY HEATING COST: \$318.81 TOTAL Local Sewer Cost: .0028 YEARLY SEWER COST: \$337.20 TOTAL YEARLY SEWER COST: \$175.38 TOTAL Energy Total: \$2,639.56 Energy Total: \$1,643.48						,	Temp Set @	140°	
Gallons of Water per Year Cost of Water TOTAL: \$174.62  Cost of Water TOTAL: \$174.62  Cost of Water TOTAL: \$99.82  UNIDENTIFIED ENERGY COST OF PRIMARY HEATING IS CALCULATED USING TABLES AND LOCAL RATES AT A 70° RISE FROM GROUND TEMP: GAS (mcf) ELECTRIC (kwh) STEAM (psi)  Local Gas Rate: 5.50 YEARLY HEATING COST: \$612.98 TOTAL YEARLY HEATING COST: \$318.81 TOTAL Local Sewer Cost: .0028 YEARLY SEWER COST: \$337.20 TOTAL YEARLY SEWER COST: \$1,643.48	NSF (GPH) Water C	onsumpti	ion:	234	NSF (GPH) Water C	onsump	tion:	120	
Cost of Water TOTAL: \$174.62 Cost of Water TOTAL: \$90.82  UNIDENTIFIED ENERGY COST OF PRIMARY HEATING IS CALCULATED USING TABLES AND LOCAL RATES AT A 70° RISE FROM GROUND TEMP: GAS (mcf) ELECTRIC (kwh) STEAM (psi)  Local Gas Rate: 5.50 (typical 5.50 per mcf)  YEARLY HEATING COST: \$612.98 TOTAL YEARLY HEATING COST: \$318.81 TOTAL  Local Sewer Cost: .0028 (typical 2.1 per ccf or .0028 per gallon)  YEARLY SEWER COST: \$337.20 TOTAL YEARLY SEWER COST: \$175.38 TOTAL  Energy Total: \$2,639.56 Energy Total: \$1,643.48	Gallons of Water pe	r Day	329.94		Gallons of Water per	Day	171.60		
UNIDENTIFIED ENERGY COST OF PRIMARY HEATING IS CALCULATED USING TABLES AND LOCAL RATES AT A 70° RISE FROM GROUND TEMP: GAS (mcf) ELECTRIC (kwh) STEAM (psi)  Local Gas Rate: 5.50 YEARLY HEATING COST: \$612.98 TOTAL YEARLY HEATING COST: \$318.81 TOTAL  Local Sewer Cost: .0028 YEARLY SEWER COST: \$337.20 TOTAL YEARLY SEWER COST: \$175.38 TOTAL  Energy Total: \$2,639.56 Energy Total: \$1,643.48	Gallons of Water pe	r Year	120,428.10	<b>-</b>	Gallons of Water per	Year	62,634.00	_	
Local Gas Rate: 5.50       (typical 5.50 per mcf)         YEARLY HEATING COST:       \$612.98       TOTAL       YEARLY HEATING COST:       \$318.81       TOTAL         Local Sewer Cost: .0028       (typical 2.1 per ccf or .0028 per gallon)       YEARLY SEWER COST:       \$175.38       TOTAL         Energy Total:       \$2,639.56       Energy Total:       \$1,643.48	Cost of Water	TOTAL:	\$174.62		Cost of Water	TOTAL:	\$90.82		
YEARLY HEATING COST: \$612.98 TOTAL YEARLY HEATING COST: \$318.81 TOTAL  Local Sewer Cost: .0028 (typical 2.1 per cof or .0028 per gallon)  YEARLY SEWER COST: \$337.20 TOTAL YEARLY SEWER COST: \$175.38 TOTAL  Energy Total: \$2,639.56 Energy Total: \$1,643.48	UNIDENTIFIED ENERGY COST C	F PRIMARY HEAT	ING IS CALCULATED U	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM G	ROUND TEMP:	GAS (mcf) ELECTRIC (ki	vh) STEAM (psi)	
Local Sewer Cost: .0028 YEARLY SEWER COST:(typical 2.1 per cof or .0028 per gallon)YEARLY SEWER COST:\$337.20TOTALEnergy Total:\$2,639.56Energy Total:\$1,643.48				_				1	
YEARLY SEWER COST: \$337.20 TOTAL YEARLY SEWER COST: \$175.38 TOTAL  Energy Total: \$2,639.56 Energy Total: \$1,643.48				4		COST:	\$318.81	TOTAL	
Energy Total: \$2,639.56 Energy Total: \$1,643.48				~~				1	
	YEARLY SEWER C	OST:	\$337.20	JIOIAL	YEARLY SEWER CO	JS1:	\$175.38	IOTAL	
Associated Chemical Est.: \$2,601.25 Associated Chemical Est.: \$1,352.89	Energy Tota	al:	\$2,639.56		Energy Tota	ıl:	\$1,643.48		
	Associated Chem	ical Est.:	\$2,601.25		Associated Chemi	cal Est.:	\$1,352.89	_	
Total Cost to End User: \$5,240.81 Total Cost to End User: \$2,996.38	Total Cost to En	d User:	\$5,240.81	<u>-</u>	Total Cost to End	l User:	\$2,996.38	= <del></del>	

CALCULATIONS PREPARED FOR: SAMPLE, Chemical sanitizer CONVEYOR									
ELECTRICAL 3 Phase	: Kw=(1.73 x E x I x PF)÷k 1	Phase: Kw=(E x I :	x PF)÷k KWH= 1000w/1 hr E= vo	its I= amperes	HP= .07457 Kw, Kw x	1.341=hp			
MODEL:	Jackson, ES	1400	M	ODEL:	ADS, ADO	C-44 (L)			
Racks Washed Per Day:	350		Racks Wa	shed Per	Day:	350			
NSF Racks Per Hour:	248		NSF Rack	s Per Hou	ır:	244			
Machine HRS/Operation:	1.41	_	Machine H	IRS/Opera	ation:	1.43			
Local Rate per KWH:	0.0725	<del></del>	Local Rate	per KWH	1:	0.0725			
(US Average .0725)		<del>-</del>	(US Average	.0725)					
<u>An</u>	<u>np Kw</u>	<u>HP</u>		<u>Amp</u>	<u>Kw</u>	<u>HP</u>			
Voltage: 208v,3ph			Voltage: 208v,3ph						
Pump Motor: 5	1.49	2	Pump Motor:	8	2.24	3			
Pump Motor:			Pump Motor:	0.5	0.22	0.3			
Pump Motor:			Pump Motor:						
Conveyor Motor: 0.	5 0.19	0.25	Conveyor Motor:	0.5	0.22	0.3			
Booster (built-in)			Booster (alternate)						
Tank Heater:	15.0		Tank Heater:		8.0				
Tank Heater:			Tank Heater:		2.2				
KWH	16.68		KWH		12.89				
Daily Machine Cost	\$1.70		Daily Machine Co	st	\$1.34				
Booster Heater Model:	: Hatco C-24	•	Booster Heater M	odel:	None Neede	ed			
Voltage: 208 amp K	WH: 24	Rise: 40°	Voltage: 208 amp	KWH:	0	Rise: 0°			
Daily Booster Cost	\$2.45	<del>-</del>	Daily Booster Cost		\$0.00				
Daily Machine & Booster	4.15	_	Daily Machine & Boo	ster	\$1.34				
Cost Per Month	126.23	<u></u>	Cost Per Month		\$40.76	_			
Electrical Cost Per Yea	ar \$1,514.76		Electrical Cost Pe	r Year	\$489.09				
WATER AND SEWE	<u>ER USAGE</u>	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	337 = ft³					
Local Water Cost: .00		-	Heating Capacity	•	Temp Set @	140°			
(typical 1.09 ccf or .00145 per gal		(GPH recover			•	400			
NSF (GPH) Water Consu		234	NSF (GPH) Water C	-		120			
Gallons of Water per Day	329.94	_	Gallons of Water per	•	171.60	-			
Gallons of Water per Year		শ্ব	Gallons of Water per		62,634.00	7			
Cost of Water TOT		4	Cost of Water	TOTAL:	\$90.82	]			
UNIDENTIFIED ENERGY COST OF PRIMAR	RY HEATING IS CALCULATED (	JSING TABLES AND	LOCAL RATES AT A 70° RISE FROM (	GROUND TEMP:	GAS (mcf) ELECTRIC (ki	wh} STEAM (psi)			
Local Gas Rate: 5.50	(typical 5.50 per	****	\(\mathrea{\pi_1\cdot\(\pi_1\angle\)}\)}}}}}}}}}}}}}\)			Torri			
YEARLY HEATING COST	<u> </u>	TOTAL	YEARLY HEATING	COST:	\$318.81	TOTAL			
Local Sewer Cost: .00					A4==	1-0			
YEARLY SEWER COST:	\$337.20	TOTAL	YEARLY SEWER C	OST:	\$175.38	TOTAL			
Energy Total:	\$2,639.56		Energy Tota	al:	\$1,074.09	]			
Associated Chemical E	st.: \$2,601.25	_	Associated Chemi	ical Est.:	\$1,578.75	_			
Total Cost to End Use	er: \$5,240.81	<del></del>	Total Cost to En	d User:	\$2,652.85	_			

#### COMPARISON FOR COMMERCIAL DISHMACHINES

	COMP	ARISON FO	OR COM	MERCIAL DISHM	IACHIN	ES	
CALCULATION	S PREPAR	ED FOR:		SAMPLE, i	HIGH TEM	P CONVEYOR	
<u>ELECTRICAL</u>	3 Phase: Kw=(1	.73 x E x I x PF)+k 1	Phase; Kw=(E x I	x PF)÷k KWH= 1000w/1 hr E= vo	olts I= amperes	HP= .07457 Kw, Kw	x 1.341=hp
MODEL:	Ja	ackson, AJ	-44	M	ODEL:	ADS, A	DC-44
Racks Washed Per	Day:	350		Racks Wa	shed Per	Day:	350
NSF Racks Per Hou	ır:	248	_	NSF Rack	s Per Hou	ır:	244
Machine HRS/Opera	ation:	1.41	_	Machine H	IRS/Oper	ation:	1.43
Local Rate per KWH	<del>1</del> :	0.0725	_	Local Rate	e per KWH	<del>-1</del> :	0.0725
(US Average .0725)				(US Average	.0725)		
	Amp	<u>Kw</u>	<u>HP</u>	r	<u>Amp</u>	Kw	HP
Voltage: 208v,3ph		4.40		Voltage: 208v,3ph			
Pump Motor:	5	1.49	2	Pump Motor:	8	2.24	3
Pump Motor:				Pump Motor:	0.5	0.22	0.3
Pump Motor:	0.5	0.40	0.05	Pump Motor:		0.00	
Conveyor Motor:	0.5	0.19	0.25	Conveyor Motor:	0.5	0.22	0.3
Booster (built-in) Tank Heater:		34.6 15.0		Booster (alternate)		0.0	
Tank Heater:		15.0		Tank Heater: Tank Heater:		8.0	
KWH		51.28		KWH		2.2 <b>12.89</b>	
Daily Machine Co	et	\$5.24	j	Daily Machine Co	ef	\$1.34	]
Booster Heater M		Internal		-		•	
			Rise: 40°	Booster Heater Me		Hatco C-15	D: 400
Voltage: 208 amp	KWH:		Kise: 40°	Voltage: 208 amp	KWH:		Rise: 40°
Daily Booster Cost	antor.	\$0.00	•	Daily Booster Cost	_4	\$1.56	-
Daily Machine & Boo Cost Per Month	JSIEI	5.24 159.38	-	Daily Machine & Boo Cost Per Month	ster	\$2.90	_
Electrical Cost Pe	or Voor	\$1,912.56		Electrical Cost Pe	r Voor	\$88.21	1
	•			Electrical Cost Pe	rtear	\$1,058.48	
<u>WATER AND S</u>	<u>EWER L</u>	<u>JSAGE</u>	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	$37 = ft^3$		
Local Water Cost (typical 1.09 ccf or .00145			Primary I	Heating Capacity Rate:) 100	1	Гетр Set @	140°
NSF (GPH) Water C	onsumpti	ion:	234	NSF (GPH) Water C	onsumpt	ion:	120
Gallons of Water pe	r Day	329.94		Gallons of Water per	•	171.60	
Gallons of Water per	· · · · · · · · · · · · · · · · · · ·	120,428.10	-	Gallons of Water per	-	62,634.00	-
Cost of Water	TOTAL:	\$174.62		Cost of Water	TOTAL:	\$90.82	
UNIDENTIFIED ENERGY COST O	F PRIMARY HEAT.	ING IS CALCULATED US	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM G	ROUND TEMP: 0	GAS (mcf) ELECTRIC (k)	ı wh) STEAM (psi)
Local Gas Rate:		(typical 5.50 per m					
YEARLY HEATING	,	\$612.98	TOTAL	YEARLY HEATING (	COST	\$318.81	TOTAL
Local Sewer Cost	l	(typical 2.1 per cc	1				1.017
YEARLY SEWER C		\$337.20	TOTAL	YEARLY SEWER CO	OST:	\$175.38	TOTAL
Energy Tota	al:	\$3,037.36		Energy Tota	ı <b>I</b> :	\$1,643.48	
Associated Chemi	ical Est.: ˈ	\$2,601.25	•	Associated Chemi	cal Est.:	\$1,352.89	<b>.</b>

Total Cost to End User:

\$2,996.38

\$5,638.61

CALCULATIONS				SAMPLE, F		P CONVEYOR		
ELECTRICAL	3 Phase: Kw=(1	.73 x E x l x PF)+k 1	Phase: Kw=(E x I :	x PF)÷k KWH= 1000w/1 hr E= vo	its I= amperes	HP= .07457 Kw, Kw x	1.341=hp	
MODEL:	Ja	ackson, AJ	-86	M	ODEL:	ADS, A	DC-44	
Racks Washed Per I	Day:	350		Racks Wa	shed Per	Day:	350	
NSF Racks Per Hou	-	248	•	NSF Rack	s Per Hou	ır:	244	
Machine HRS/Opera	ation:	1.41	•	Machine ⊢	IRS/Opera	ation:	1.43	
Local Rate per KWH	<b> </b> :	0.0725	•	Local Rate	per KWH	<del>1</del> :	0.0725	
(US Average .0725)			•	(US Average .0725)				
	<u>Amp</u>	<u>Kw</u>	<u>HP</u>	_	<u>Amp</u>	Kw	HP	
Voltage: 208v,3ph				Voltage: 208v,3ph				
Pump Motor:	5	1.49	2	Pump Motor:	8	2.24	3	
Pump Motor:	5	1.49	2	Pump Motor:	0.5	0.22	0.3	
Pump Motor:	3	0.75	1	Pump Motor:				
Conveyor Motor:	0.5	0.19	0.25	Conveyor Motor:	0.5	0.22	0.3	
Booster (built-in)		34.6		Booster (alternate)				
Tank Heater:		15.0		Tank Heater:		8.0		
Tank Heater:		10.0		Tank Heater:		2.2		
KWH	_	63.52		KWH		12.89		
Daily Machine Co	st	\$6.49		Daily Machine Co	st	\$1.34		
Booster Heater M	odel:	Internal		Booster Heater M	odel:	Hatco C-15		
Voltage: 208 amp	KWH:	0	Rise: 40°	Voltage: 208 amp	KWH:	15	Rise: 40°	
Daily Booster Cost		\$0.00	_	Daily Booster Cost		\$1.56	-	
Daily Machine & Boo	oster	6.49	<del></del>	Daily Machine & Boo	ster	\$2.90		
Cost Per Month		197.40	7	Cost Per Month		\$88.21	1	
Electrical Cost Pe	er Year	\$2,368.80		Electrical Cost Pe	r Year	\$1,058.48		
WATER AND S	EWER (	JSAGE	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	37 = ft³			
Local Water Cost (typical 1.09 ccf or .00145			Primary I	Heating Capacity Rate:) 100	•	Temp Set @	140°	
NSF (GPH) Water C	onsumpt	ion:	222	NSF (GPH) Water C	onsumpt	tion:	120	
Gallons of Water pe	r Day	313.02		Gallons of Water per	· Day	171.60		
Gallons of Water pe	_	114,252.30	-	Gallons of Water per	· Year	62,634.00	•	
Cost of Water	TOTAL:	\$165.67		Cost of Water	TOTAL:	\$90.82		
UNIDENTIFIED ENERGY COST O	F PRIMARY HEA	TING IS CALCULATED U	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM O	GROUND TEMP:	GAS (mcf) ELECTRIC (ki	wh) STEAM (psi)	
Local Gas Rate:		(typical 5.50 per r	·				7	
YEARLY HEATING	COST:	\$581.54	TOTAL	YEARLY HEATING	COST:	\$318.81	TOTAL	
Local Sewer Cost YEARLY SEWER C		(typical 2.1 per co	of <u>or</u> .0028 per :	gallon) YEARLY SEWER CO	OST <sup>.</sup>	\$175.38	TOTAL	
		\$3,435.91		Energy Tota		\$1,643.48	]	
Energy Tota Associated Chem		\$2,467.85		Associated Chemi		\$1,352.89	J	
			<del>-</del>	Total Cost to En		\$2,996.38	-	
Total Cost to En	u user:	\$5,903.76	_	TOTAL COST TO EN	u user:	<b>ა∠,უუნ.ან</b>	_	

#### COMPARISON FOR COMMERCIAL DISHMACHINES

CALCULATION			UK CUM	SAMPLE, HIGH TEMP CONVEYOR				
ELECTRICAL	3 Phase: Kw=(	1.73 x E x I x PF)+k 1	Phase: Kw=(E x I	x PF)+k KWH= 1000w/1 hr E= vo	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		x 1.341=hp	
MODEL:	Ir	nsinger, 44	-4	M	ODEL:	ADS, A	DC-44	
Racks Washed Per	Day:	350		Racks Wa	shed Per	Day:	350	
NSF Racks Per Hou	ır:	217	_	NSF Rack	s Per Hou	ır:	244	
Machine HRS/Opera	Machine HRS/Operation: 1.61			Machine H	lRS/Opera	ation:	1.43	
Local Rate per KWH (US Average .0725)	<del>1</del> :	0.0725	_	Local Rate (US Average	•	H:	0.0725	
(00 Attorning 0 .07 20)	·			(OS Average		14	LIF	
Voltage: 208v,3ph	Amp	<u>Kw</u>	HP	Valtaga: 2004 2nh	<u>Amp</u>	<u>Kw</u>	HP	
Pump Motor:		1.49	2	Voltage: 208v,3ph Pump Motor:	8	2.24	3	
Pump Motor:		10		Pump Motor:	0.5	0.22	0.3	
Pump Motor:				Pump Motor:	0.0	0.22	0.0	
Conveyor Motor:	0.5	0.19	0.25	Conveyor Motor:	0.5	0.22	0.3	
Booster (built-in)				Booster (alternate)	<u> </u>		0.0	
Tank Heater:		15.0		Tank Heater:		8.0		
Tank Heater:				Tank Heater:		2.2		
KWH		16.68		KWH		12.89		
Daily Machine Co	st	\$1.95		Daily Machine Co	st	\$1.34	1	
Booster Heater M	lodel:	Hatco C-24		Booster Heater Me	odel:	Hatco C-15		
Voltage: 208 amp	KWH:	24	Rise: 40°	Voltage: 208 amp	KWH:	15	Rise: 40°	
Daily Booster Cost		\$2.80		Daily Booster Cost		\$1.56	-	
Daily Machine & Boo	oster	4.75	<del></del>	Daily Machine & Boo	ster	\$2.90	-	
Cost Per Month		144.48	_	Cost Per Month		\$88.21	•	
Electrical Cost Pe	er Year	\$1,733.76		Electrical Cost Pe	r Year	\$1,058.48		
WATER AND S	EWER (	JSAGE	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	37 = ft³		_	
Local Water Cost	: .00145		Primary I	Heating Capacity	٦	Гетр Set @	140°	
(typical 1.09 ccf or .00145	per gallon)		(GPH recover					
NSF (GPH) Water C	Consumpt	ion:	198	NSF (GPH) Water C	onsumpt	ion:	120	
Gallons of Water pe	r Day	318.78	_	Gallons of Water per	Day	171.60		
Gallons of Water pe	r Year	116,354.70		Gallons of Water per	Year	62,634.00	•	
Cost of Water	TOTAL:	\$168.71		Cost of Water	TOTAL:	\$90.82		
UNIDENTIFIED ENERGY COST O	F PRIMARY HEAT	FING IS CALCULATED U	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM G	ROUND TEMP: G	GAS (mcf) ELECTRIC (k	wh) STEAM (psi)	
Local Gas Rate:	5.50	(typical 5.50 per r	ncf)					
YEARLY HEATING	COST:	\$592.25	TOTAL	YEARLY HEATING (	COST:	\$318.81	TOTAL	
Local Sewer Cost	t: .0028	(typical 2.1 per co	<u></u>				j	
YEARLY SEWER C		\$325.79	TOTAL	YEARLY SEWER CO	OST:	\$175.38	TOTAL	
Energy Tota	al:	\$2,820.52		Energy Tota	ıl:	\$1,643.48	]	
Associated Chem	ical Est.:	\$2,513.26	_	Associated Chemi	cal Est.:	\$1,352.89	_	

Total Cost to End User:

\$2,996.38

\$5,333.78

CALCULATIONS PREPARED FOR:   SAMPLE, HIGH TEMP CONVEYOR	011 0111 1701			JR COM	MERCIAL DISHM			
MODEL:   Champion 44KB   MODEL:   ADS, ADC-44		SPREPAR	ED FOR:		SAMPLE, F	IIGH TEM	PCONVEYOR	
Racks Washed Per Day:   350   NSF Racks Per Hour:   201   NSF Racks Per Hour:   201   NSF Racks Per Hour:   201   NSF Racks Per Hour:   204   NSF Racks Per Hour:   208   NSF Racks Per Hour:   208	<u>ELECTRICAL</u>	3 Phase: Kw=(1	.73 x E x I x PF)÷k 1	Phase: Kw=(E x I	x PF)+k KWH= 1000w/1 hr E= vo	its I= amperes	HP= .07457 Kw, Kw x	: 1,341=hp
NSF Racks Per Hour:   1.74	MODEL:	C	hampion 4	4KB	M	ODEL:	ADS, A	DC-44
Machine HRS/Operation:   1.74	Racks Washed Per	Day:	350		Racks Wa	shed Per	Day:	350
Local Rate per KWH:	NSF Racks Per Hou	ır:	201		NSF Racks Per Hour:			244
CUS Average 0725)   Amp   Kw   HP   Voltage: 208v,3ph   Pump Motor:   5   1.49   2   Pump Motor:   0.5   0.22   0.3   Pump Motor:   0.5   0.19   0.25   Conveyor Motor:   0.5   0.22   0.3   Pump Motor:   0.5   0.22   Pump Motor:   0.22	Machine HRS/Operation: 1.74			_	Machine H	IRS/Opera	ation:	1.43
Noting   N	•	1:	0.0725	<del>-</del>		•	1:	0.0725
Voltage: 208v,3ph	(US Average .0725)				(US Average .			
Pump Motor:   5	V !! 000 0 !	r -	<u>Kw</u>	<u>HP</u>		<u>Amp</u>	Kw	<u> </u>
Pump Motor:	***		1.40	2		<u> </u>	2.24	2
Pump Motor:   Conveyor Motor:   0.5   0.19   0.25   Conveyor Motor:   0.5   0.19   0.25   Conveyor Motor:   0.5   0.22   0.3	•	5	1.49		· · · · · · · · · · · · · · · · · · ·			
Conveyor Motor:   0.5   0.19   0.25   Conveyor Motor:   0.5   0.22   0.3	•				·	0.5	0.22	0.3
Booster (built-in)		0.5	0.19	0.25	· •	0.5	0.22	0.3
Tank Heater: Tan	<u>-</u>	0.0	0.10	0.20	* F	0.0	0.22	0.0
Tank Heater:   Tank Heater:   Tank Heater:   RWH   16.68	` '		15.0		` <u>'</u>		8.0	
Machine Cost   S2.10   Daily Machine Cost   S1.34   Booster Heater Model:   Hatco C-36   Booster Heater Model:   Hatco C-15   Hatco C-36   Booster Heater Model:   Hatco C-15   Hatco C-15					ļ.			
Daily Machine Cost   \$2.10   Daily Machine Cost   \$1.34			16.68		L			
Voltage: 208 amp   KWH:   36	Daily Machine Co	ost	\$2.10	_	Daily Machine Cos	st		
Voltage: 208 amp   KWH:   36	Booster Heater N	lodel:	Hatco C-36		Booster Heater Me	odel:	Hatco C-15	
Daily Booster Cost   \$4.54   Daily Booster Cost   \$1.56     Daily Machine & Booster   \$2.90     Cost Per Month   \$201.96   Cost Per Month   \$88.21     Electrical Cost Per Year   \$2,423.52   Electrical Cost Per Year   \$1,058.48     WATER AND SEWER USAGE   CCF = 100 ft³   CCF × 7.48 = gal. Gal. x .1337 = ft³     Local Water Cost: .00145   Primary Heating Capacity   Temp Set (@ 140°     NSF (GPH) Water Consumption:   324   NSF (GPH) Water Consumption:   120     Gallons of Water per Day   563.76   Gallons of Water per Day   171.60     Gallons of Water per Year   205,772.40   Gallons of Water per Year   62,634.00     Cost of Water   TOTAL:   \$298.37   Cost of Water   TOTAL:   \$90.82     Local Gas Rate: 5.50   (typical 5.50 per mcf)     YEARLY HEATING COST:   1,047.38   TOTAL   YEARLY HEATING COST:   \$318.81   TOTAL     Local Sewer Cost: .0028   (typical 2.1 per cof gr0028 per gallon)     YEARLY SEWER COST:   \$4,345.43   Energy Total:   \$1,643.48     Associated Chemical Est.:   \$1,352.89	Voltage: 208 amp	KWH:	36	Rise: 40°	Voltage: 208 amp	KWH:		Rise: 40°
Daily Machine & Booster   Cost Per Month   201.96   Cost Per Month   \$88.21			\$4.54	=	· ·		\$1.56	•
Electrical Cost Per Year   \$2,423.52   Electrical Cost Per Year   \$1,058.48	Daily Machine & Bo	oster	6.64	-	Daily Machine & Boo	ster	\$2.90	•
MATER AND SEWER USAGE	Cost Per Month		201.96	_	Cost Per Month		\$88.21	
Primary Heating Capacity (GPH recover Rate:) 100   140°	Electrical Cost Po	er Year	\$2,423.52		Electrical Cost Pe	r Year	\$1,058.48	
Primary Heating Capacity (GPH recover Rate:) 100   140°	WATER AND S	EWER L	JSAGE	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	37 = ft³		
NSF (GPH) Water Consumption:   324   NSF (GPH) Water Consumption:   120				Primary I	Heating Capacity	-	Temp Set @	140°
Gallons of Water per Day Gallons of Water per Year Gallons of Water per Year Cost of Water TOTAL: \$298.37 Cost of Water  UNIDENTIFIED ENERGY COST OF PRIMARY HEATING IS CALCULATED USING TABLES AND LOCAL RATES AT A 70° RISE FROM GROUND TEMP: GAS (mcf) ELECTRIC (kwh) STEAM (psi)  Local Gas Rate: 5.50 YEARLY HEATING COST: \$1,047.38 TOTAL YEARLY HEATING COST: \$1,047.38 YEARLY SEWER COST: \$576.16 TOTAL YEARLY SEWER COST: \$175.38 TOTAL Energy Total: \$4,345.43 Energy Total: Associated Chemical Est.: \$1,052.89	_ + +							
Gallons of Water per Day Gallons of Water per Year Gallons of Water per Year Cost of Water TOTAL: \$298.37 Cost of Water  UNIDENTIFIED ENERGY COST OF PRIMARY HEATING IS CALCULATED USING TABLES AND LOCAL RATES AT A 70° RISE FROM GROUND TEMP: GAS (mcf) ELECTRIC (kwh) STEAM (psi)  Local Gas Rate: 5.50 YEARLY HEATING COST: \$1,047.38 TOTAL YEARLY HEATING COST: \$1,047.38 YEARLY SEWER COST: \$576.16 TOTAL YEARLY SEWER COST: \$175.38 TOTAL Energy Total: \$4,345.43 Energy Total: Associated Chemical Est.: \$1,352.89	NSF (GPH) Water (	Consumpt	ion:	324	NSF (GPH) Water C	onsumpt	ion:	120
Gallons of Water per Year Cost of Water TOTAL: \$298.37 Cost of Water TOTAL: \$90.82  UNIDENTIFIED ENERGY COST OF PRIMARY HEATING IS CALCULATED USING TABLES AND LOCAL RATES AT A 70° RISE FROM GROUND TEMP: GAS (mct) ELECTRIC (kwh) STEAM (psi)  Local Gas Rate: 5.50 (typical 5.50 per mcf)  YEARLY HEATING COST: \$1,047.38 TOTAL YEARLY HEATING COST: \$318.81 TOTAL  Local Sewer Cost: .0028 (typical 2.1 per ccf or .0028 per gallon)  YEARLY SEWER COST: \$576.16 TOTAL YEARLY SEWER COST: \$175.38 TOTAL  Energy Total: \$4,345.43 Energy Total: \$1,643.48  Associated Chemical Est.: \$4,444.68 Associated Chemical Est.: \$1,352.89	, ,	-			• •	_		
Cost of Water TOTAL: \$298.37 Cost of Water TOTAL: \$90.82  UNIDENTIFIED ENERGY COST OF PRIMARY HEATING IS CALCULATED USING TABLES AND LOCAL RATES AT A 70° RISE FROM GROUND TEMP: GAS (mcf) ELECTRIC (kwh) STEAM (psi)  Local Gas Rate: 5.50 (typical 5.50 per mcf)  YEARLY HEATING COST: \$1,047.38 TOTAL YEARLY HEATING COST: \$318.81 TOTAL  Local Sewer Cost: .0028 (typical 2.1 per ccf or .0028 per gallon)  YEARLY SEWER COST: \$576.16 TOTAL YEARLY SEWER COST: \$175.38 TOTAL  Energy Total: \$4,345.43 Energy Total: \$1,643.48  Associated Chemical Est.: \$4,444.68 Associated Chemical Est.: \$1,352.89	•	•		-	•	-		•
Local Gas Rate: 5.50       (typical 5.50 per mcf)         YEARLY HEATING COST:       \$1,047.38       TOTAL       YEARLY HEATING COST:       \$318.81       TOTAL         Local Sewer Cost: .0028       (typical 2.1 per ccf or .0028 per gallon)       YEARLY SEWER COST:       \$175.38       TOTAL         Energy Total:       \$4,345.43       Energy Total:       \$1,643.48         Associated Chemical Est.:       \$4,444.68       Associated Chemical Est.:       \$1,352.89	•		I		•			
YEARLY HEATING COST: \$1,047.38 TOTAL YEARLY HEATING COST: \$318.81 TOTAL  Local Sewer Cost: .0028 YEARLY SEWER COST: \$576.16 TOTAL YEARLY SEWER COST: \$175.38 TOTAL  Energy Total: \$4,345.43 Energy Total: \$1,643.48 Associated Chemical Est.: \$4,444.68 Associated Chemical Est.: \$1,352.89	UNIDENTIFIED ENERGY COST O	OF PRIMARY HEAT	TING IS CALCULATED U	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM G	ROUND TEMP: (	GAS (mcf) ELECTRIC (kv	vh} STEAM (psi)
YEARLY HEATING COST: \$1,047.38 TOTAL YEARLY HEATING COST: \$318.81 TOTAL  Local Sewer Cost: .0028 YEARLY SEWER COST: \$576.16 TOTAL  Energy Total: \$4,345.43 Energy Total: \$1,643.48 Associated Chemical Est.: \$4,444.68 Associated Chemical Est.: \$1,352.89	Local Gas Rate:	5.50	(typical 5.50 per r	ncf)				
Local Sewer Cost: .0028(typical 2.1 per ccf or .0028 per gallon)YEARLY SEWER COST:\$576.16TOTALYEARLY SEWER COST:\$175.38TOTALEnergy Total:\$4,345.43Energy Total:\$1,643.48Associated Chemical Est.:\$4,444.68Associated Chemical Est.:\$1,352.89			·	<del></del> 1	YEARLY HEATING (	COST:	\$318.81	TOTAL
YEARLY SEWER COST: \$576.16 TOTAL YEARLY SEWER COST: \$175.38 TOTAL  Energy Total: \$4,345.43 Energy Total: \$1,643.48  Associated Chemical Est.: \$4,444.68 Associated Chemical Est.: \$1,352.89				<u></u>		•	医马克勒氏病 医克克氏	1
Associated Chemical Est.: \$4,444.68 Associated Chemical Est.: \$1,352.89				-	•	OST:	\$175.38	TOTAL
Associated Chemical Est.: \$4,444.68 Associated Chemical Est.: \$1,352.89	Eneray Tot	al:	\$4.345.43		Energy Tota	ıl:	\$1,643.48	
				١				1
			\$8,790.12	<del>.</del>			\$2,996.38	•

CALCULATION				SAMPLE, (		sanitizer CONV	EYOR	
ELECTRICAL	3 Phase: Kw=(1	.73 x E x i x PF)÷k 1	Phase: Kw=(E x I	x PF)+k KWH= 1000w/1 hr E= va	its I= amperes	HP= .07457 Kw, Kw x	(1.341=hp	
MODEL:	Char	npion KL4	4 (L)	M	ODEL:	ADS, ADO	C-44 (L)	
Racks Washed Per	Day:	350		Racks Washed Per Day: 3				
NSF Racks Per Hou	ır:	200	•	NSF Racks Per Hour:				
Machine HRS/Opera	ation:	1.75	•	Machine H	IRS/Oper	ation:	1.43	
Local Rate per KWH: 0.0725			•	Local Rate	per KWH	<b>⊣</b> :	0.0725	
(US Average .0725)			-	(US Average	.0725)			
	<u>Amp</u>	<u>Kw</u>	<u>HP</u>		<u>Amp</u>	<u>Kw</u>	<u>HP</u>	
Voltage: 208v,3ph				Voltage: 208v,3ph				
Pump Motor:	5	1.49	2	Pump Motor:	8	2.24	3	
Pump Motor:				Pump Motor:	0.5	0.22	0.3	
Pump Motor:				Pump Motor:				
Conveyor Motor:	0.5	0.19	0.25	Conveyor Motor:	0.5	0.22	0.3	
Booster (built-in)				Booster (alternate)				
Tank Heater:		10.0		Tank Heater:		8.0		
Tank Heater:				Tank Heater:		2.2		
KWH		11.68		KWH		12.89		
Daily Machine Co	st	\$1.48	Daily Machine Co	st	\$1.34			
Booster Heater M	lodel:	None Neede	d	Booster Heater M	odel:	None Neede	ed	
Voltage: 208 amp	KWH:	0	Rise: 0°	Voltage: 208 amp	KWH:	0	Rise: 0°	
Daily Booster Cost		\$0.00	_	Daily Booster Cost		\$0.00	•	
Daily Machine & Boo	oster	1.48	_	Daily Machine & Boo	ster	\$1.34	-	
Cost Per Month		45.02	_	Cost Per Month		\$40.76	-	
Electrical Cost Pe	er Year	\$540.24		Electrical Cost Pe	r Year	\$489.09		
WATER AND S	<u>EWER (</u>	JSAGE	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	37 = ft³			
Local Water Cost (typical 1.09 ccf or .00145			Primary I	Heating Capacity Rate:) 100	•	Temp Set @	140°	
NSF (GPH) Water 0	Consumpt	ion:	321	NSF (GPH) Water C	onsumpt	tion:	120	
Gallons of Water pe	r Day	561.75		Gallons of Water per	· Day	171.60		
Gallons of Water pe	r Year	205,038.75	-	Gallons of Water per	Year	62,634.00	•	
Cost of Water	TOTAL:	\$297.31		Cost of Water	TOTAL:	\$90,82		
UNIDENTIFIED ENERGY COST C	F PRIMARY HEAT	TING IS CALCULATED U	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM G	GROUND TEMP:	GAS (mcf) ELECTRIC (kv	vh) STEAM (psi)	
Local Gas Rate:		(typical 5.50 per r	···				1	
YEARLY HEATING		\$1,043.65	TOTAL	YEARLY HEATING	COST	\$318.81	TOTAL	
Local Sewer Cos YEARLY SEWER C		(typical 2.1 per co	f <u>or</u> .0028 per : <b>TOTAL</b>	gallon) YEARLY SEWER CO	OST:	\$175.38	TOTAL	
Energy Tot		\$2,455.30	] <del>-</del>	Energy Tota		\$1,074.09	]	
Associated Chem			1	Associated Chemi			]	
		\$5,168.21	_			\$1,578.75	-	
Total Cost to En	a user:	\$7,623.51	_	Total Cost to End	u User:	\$2,652.85	-	

1			OR COM	MERCIAL DISHM				
CALCULATION	S PREPAR	ED FOR:		SAMPLE, I	HIGH TEM	P CONVEYOR		
<u>ELECTRICAL</u>	3 Phase: Kw=(1	.73 x E x l x PF)÷k 1 l	Phase: Kw=(E x I	x PF)+k KWH= 1000w/1 hr E= vc	ilts I= amperes	HP= .07457 Kw, Kw	x 1.341=hp	
MODEL:	С	MA-44 (H)		M	ODEL:	ADS, A	DC-44	
Racks Washed Per	Day:	350	_	Racks Wa	shed Per	Day:	350	
NSF Racks Per Hou	ır:	205	_	NSF Racks Per Hour:				
Machine HRS/Opera	ation:	1.71	_	Machine H	IRS/Oper	ation:	1.43	
Local Rate per KWH	<del>1</del> :	0.0725	-	Local Rate	e per KWI	<b>-1</b> :	0.0725	
(US Average .0725)				(US Average .0725)				
	<u>Amp</u>	Kw	<u>HP</u>	,	Amp	Kw	HP	
Voltage: 208v,3ph				Voltage: 208v,3ph				
Pump Motor:	3.2	0.75	1	Pump Motor:	8	2.24	3	
Pump Motor:	3.2	0.75	1	Pump Motor:	0.5	0.22	0.3	
Pump Motor:				Pump Motor:			<u> </u>	
Conveyor Motor:	0.5	0.22	0.3	Conveyor Motor:	0.5	0.22	0.3	
Booster (built-in)		40.0		Booster (alternate)				
Tank Heater:		10.0		Tank Heater:		8.0		
Tank Heater:		44 =0		Tank Heater:		2.2		
KWH	•	11.72	J	KWH		12.89	]	
Daily Machine Co	st	\$1.45		Daily Machine Co	st	\$1.34		
Booster Heater M	lodel:	Hatco C-24	<del> </del>	Booster Heater M	odel:	Hatco C-15		
Voltage: 208 amp	KWH:	24	Rise: 40°	Voltage: 208 amp	KWH:	15	Rise: 40°	
Daily Booster Cost		\$2.98		Daily Booster Cost		\$1.56	_	
Daily Machine & Boo	oster	4.43	_	Daily Machine & Boo	ster	\$2.90	<del>-</del>	
Cost Per Month		134.74	1	Cost Per Month		\$88.21	7	
Electrical Cost Pe	er Year	\$1,616.88		Electrical Cost Pe	r Year	\$1,058.48		
WATER AND S	EWER L	<u>JSAGE</u>	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	37 = ft³			
Local Water Cost	: .00145		Primary I	Heating Capacity		Temp Set @	140°	
(typical 1.09 ccf or .00145			(GPH recover			,		
NSF (GPH) Water (	Consumpt	ion:	192	NSF (GPH) Water C	onsumpt	ion:	120	
Gallons of Water pe	r Day	328.32		Gallons of Water per	· Day	171.60		
Gallons of Water pe	r Year	119,836.80	•	Gallons of Water per	· Year	62,634.00	-	
Cost of Water	TOTAL:	\$173.76		Cost of Water	TOTAL:	\$90.82		
UNIDENTIFIED ENERGY COST C	F PRIMARY HEAT	FING IS CALCULATED US	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM G	ROUND TEMP:	GAS (mcf) ELECTRIC (k	→ wh} STEAM {psi}	
Local Gas Rate:	5 50	(typical 5.50 per n	ncf)					
YEARLY HEATING		\$609.97	TOTAL	YEARLY HEATING	COST	\$318.81	TOTAL	
Local Sewer Cos		(typical 2.1 per cc	1			TAINING TO	1	
YEARLY SEWER C		\$335.54	TOTAL	YEARLY SEWER CO	OST:	\$175.38	TOTAL	
Energy Tota	al:	\$2,736.16	1	Energy Tota	ıl:	\$1,643.48	-	
Associated Chem	ical Est.:	\$2,588.47	•	Associated Chemi	cal Est.:	\$1,352.89	<b></b>	

**Total Cost to End User:** 

\$2,996.38

\$5,324.63

#### COMPARISON FOR COMMERCIAL DISHMACHINES

CALCULATIONS				SAMPLE, C		Sanitizer CONV	/EYORS
ELECTRICAL	3 Phase: Kw=(1	I.73 x E x I x PF)÷k 1	Phase: Kw=(E x l	x PF)+k KWH= 1000w/1 hr E= vol	ts I= amperes	s HP= .07457 Kw, Kw	x 1.341=hp
MODEL:	С	MA-44 (L)		MC	DDEL:	ADS, AD	C-44 (L)
Racks Washed Per	Day:	350		Racks Was	shed Per	Day:	350
NSF Racks Per Hou	•	205	-	NSF Racks Per Hour:			244
Machine HRS/Opera	Machine HRS/Operation: 1.71			Machine H	RS/Oper	ation:	1.43
Local Rate per KWH	l:	0.0725	<b>-</b> -	Local Rate		H:	0.0725
(US Average .0725)				(US Average .	0725)		•
	<u>Amp</u>	<u>Kw</u>	<u>HP</u>		<u>Amp</u>	<u>Kw</u>	<u>HP</u>
Voltage: 208v,3ph		0 7 -	4	Voltage: 208v,3ph		0.04	
Pump Motor:	3.2	0.75	1 1	Pump Motor:	88	2.24	3
Pump Motor: Pump Motor:	3.2	0.75		Pump Motor: Pump Motor:	0.5	0.22	0.3
Conveyor Motor:	0.5	0.22	0.3	Conveyor Motor:	0.5	0.22	0.3
Booster (built-in)	0.5	0.22	0.0	Booster (alternate)	0.5	0.22	0.0
Tank Heater:		10.0		Tank Heater:		8.0	
Tank Heater:				Tank Heater:		2.2	
KWH		11.72	<u> </u>	KWH		12.89	
Daily Machine Co	st	\$1.45		Daily Machine Cos	st	\$1.34	_1
Booster Heater M	odel:	None Neede	ed	Booster Heater Mo	odel:	None Need	ed
Voltage: 208 amp	KWH:		Rise: 0°	Voltage: 208 amp	KWH:		Rise: 0°
Daily Booster Cost		\$0.00	-	Daily Booster Cost		\$0.00	-
Daily Machine & Boo	oster	1.45	-	Daily Machine & Boo	ster	\$1.34	-
Cost Per Month		44.10		Cost Per Month		\$40.76	<del></del>
Electrical Cost Pe	er Year	\$529.20		Electrical Cost Pe	r Year	\$489.09	
WATER AND S	FWFR I	ISAGE	- CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	37 = ft³		
Local Water Cost			Primary	Heating Capacity	,	Temp Set @	140°
(typical 1.09 ccf or .00145			(GPH recover	*		remp oct @	1-10
NSF (GPH) Water C	onsumpt	ion:	192	NSF (GPH) Water C	onsump	tion:	120
Gallons of Water pe	r Day	328.32		Gallons of Water per	Day	171.60	
Gallons of Water pe	r Year	119,836.80	_	Gallons of Water per	Year	62,634.00	<del>_</del>
Cost of Water	TOTAL:	\$173.76		Cost of Water	TOTAL:	\$90.82	
UNIDENTIFIED ENERGY COST O	F PRIMARY HEAT	TING IS CALCULATED U	⊐ SING TABLES AND	LOCAL RATES AT A 70° RISE FROM G	ROUND TEMP:	GAS (mcf) ELECTRIC (k	wh} STEAM (psi)
Local Gas Rate:	5.50	(typical 5.50 per r	ncf)				
YEARLY HEATING		\$609.97	TOTAL	YEARLY HEATING (	COST:	\$318.81	TOTAL
Local Sewer Cos		(typical 2.1 per co	<b>≟</b>			FILE COMMENSATION FASTISTICS	<u></u>
YEARLY SEWER C		\$335.54	TOTAL	YEARLY SEWER CO	DST:	\$175.38	TOTAL
Energy Tota	al:	\$1,648.48	]	Energy Tota	l:	\$1,074.09	
Associated Chem		\$3,020.61	_i	Associated Chemi		\$1,578.75	
			-				

\$4,669.08

**Total Cost to End User:** 

**Total Cost to End User:** 

\$2,652.85

CALCULATIONS PREPARED FOR: SAMPLE, Chemical Sanitizer CONVEYORS										
ELECTRICAL	3 Phase: Kw=(1	.73 x E x l x PF)÷k 1	Phase: Kw=(E x I	x PF)+k KWH= 1000w/1 hr E= vo	olts I= amperes	s HP= .07457 Kw, Kw :	< 1.341=hp			
MODEL:	A	DS 5AG (de	ouble)	M	ODEL:	ADS, ADO	C-44 (L)			
Racks Washed Per	Day:	350		Racks Washed Per Day: 350						
NSF Racks Per Hou	r:	74	•	NSF Racks Per Hour:			244			
Machine HRS/Opera	Machine HRS/Operation: 4.73			Machine H	IRS/Oper	ation:	1.43			
Local Rate per KWH		0.0725		Local Rate	•		0.0725			
(US Average .0725)	(US Average .0725)									
	<u>Amp</u>	<u>Kw</u>	<u>HP</u>		<u>Amp</u>	<u>Kw</u>	<u>HP</u>			
Voltage: 110v,1ph				Voltage: 208v,3ph						
Pump Motor:	15	1.12	1.5	Pump Motor:	8	2.24	3			
Pump Motor:	15	1.12	1.5	Pump Motor:	0.5	0.22	0.3			
Pump Motor:				Pump Motor:						
Conveyor Motor:				Conveyor Motor:	0.5	0.22	0.3			
Booster (built-in)				Booster (alternate)						
Tank Heater:				Tank Heater:		8.0				
Tank Heater:				Tank Heater:		2.2				
KWH		2.24		KWH		12.9				
Daily Machine Co	st	\$0.77		Daily Machine Co	st	\$1.34				
Booster Heater Model: None Needed Booster Heater Model: None Needed										
Voltage: 208 amp	KWH:	0	Rise: 0°	Voltage: 208 amp	KWH:	: 0	Rise: 0°			
Daily Booster Cost		\$0.00	•	Daily Booster Cost		\$0.00	•			
Daily Machine & Boo	oster	0.77	-	Daily Machine & Boo	ster	\$1.34	•			
Cost Per Month		23.42	•	Cost Per Month		\$40.76	•			
Electrical Cost Pe	er Year	\$281.04		Electrical Cost Pe	r Year	\$489.09				
WATER AND S	EWER (	<u>JSAGE</u>	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	337 = ft³					
Local Water Cost	: .00145		Primary I	Heating Capacity		Temp Set @	140°			
(typical 1.09 ccf or .00145	per gallon)		(GPH recover	Rate:) 100						
NSF (GPH) Water C	onsumpt		118.4	NSF (GPH) Water C	onsump		120			
Gallons of Water pe	-	560.03		Gallons of Water per	•	171.60				
Gallons of Water pe	r Year	204,410.95	_	Gallons of Water per	r Year	62,634.00	_			
Cost of Water	TOTAL:	\$296.40		Cost of Water	TOTAL:	\$90.82				
UNIDENTIFIED ENERGY COST O	F PRIMARY HEAT	TING IS CALCULATED US	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM C	GROUND TEMP:	GAS (mcf) ELECTRIC (ki	vh) STEAM (psi)			
Local Gas Rate:	<i>5.50</i>	(typical 5.50 per n	ncf)							
YEARLY HEATING	COST:	\$1,040.45	TOTAL	YEARLY HEATING	COST:	\$318.81	TOTAL			
Local Sewer Cos		(typical 2.1 per cc	3				1			
YEARLY SEWER C	OST:		TOTAL	YEARLY SEWER C	OST:	\$175.38	TOTAL			
Energy Tota		\$2,190.24		Energy Tota		\$1,074.09				
Associated Chem	ical Est.:	\$5,152.38	_	Associated Chemi	ical Est.:	\$1,578.75	_			
Total Cost to En	d User:	\$7,342.62	_	Total Cost to En	d User:	\$2,652.85	-			

# Conveyors 66"

#### COMPARISON FOR COMMERCIAL DISHMACHINES

CALCULATION				SAMPLE, I		P CONVEYORS	
<u>ELECTRICAL</u>	3 Phase: Kw=(*	1,73 x E x 1 x PF)÷k 1	Phase: Kw=(E x 1	1 x PF)÷k KWH= 1000w/1 hr E= v	volts 1= ampere	es HP= .0746 Kw	
MODEL:	Но	bart CRS-6	6A	M	ODEL:	ADC	-66
Racks Washed Per	———— Day:	350		Racks Wa	shed Per	Day:	350
NSF Racks Per Hou	r:	203	-	NSF Rack	244		
Machine HRS/Operation: 1.72			-	Machine H	IRS/Opera	ation:	1.43
Local Rate per KWH	<b>l</b> :	0.0725	<del>-</del>	Local Rate	e per KWH	<del>1</del> :	0.0725
(US Average .0725)			-	(US Average	.0725)		
:	<u>Amp</u>	<u>Kw</u>	<u>HP</u>	,	<u>Amp</u>	<u>Kw</u>	<u>HP</u>
Voltage: 208v/3ph				Voltage: 208v/3ph			
Pump Motor:	5	1.49	2	Pump Motor:	5.8	1.12	1.5
Pump Motor:	3	0.75	1	Pump Motor:	88	2.24	3
Pump Motor:				Pump Motor:	0.5	0.22	0.3
Conveyor Motor:	0.5	0.19	0.25	Conveyor Motor:	0.5	0.22	0.3
Booster (built-in)		45.0		Booster (alternate)	40	10.0	
Tank Heater:		15.0		Tank Heater:	46	18.0	
Tank Heater:		47.40	<b></b>	Tank Heater:	6	2.2	
KWH	- 4	17.42	]	KWH	_4	24.00	İ
Daily Machine Co		\$2.17		Daily Machine Co		\$2.49	
Booster Heater M	odel:	Hatco C-30		Booster Heater M	odel:	Hatco C-12	
Voltage: 208 amp	KWH:	30	Rise: 40°	Voltage: 208 amp	KWH:	12	Rise: 40°
Daily Booster Cost		\$3.74	-	Daily Booster Cost		\$1.24	_
Daily Machine & Boo	oster	5.91	_	Daily Machine & Booster \$3.73			<u>.</u>
Cost Per Month		179.79	•	Cost Per Month \$113.45			7
Electrical Cost Pe	er Year	\$2,157.48		Electrical Cost Pe	er Year	\$1,361.42	
WATER AND S	EWER (	<u>USAGE</u>	CCF = 100 ft <sup>3</sup>	CCF x 748.051 = gal. Gal. x	c.1337 = ft³		
Local Water Cost (typical 1.09 ccf or .00145			Primary I (GPH recover	Heating Capacity Rate:) 100	•	Temp Set @	140°
NSF (GPH) Water 0	onsumpt	ion:	300	NSF (GPH) Water C	onsumpt	ion:	120
Gallons of Water pe	r Day	516.00	_	Gallons of Water per	r Day	171.60	_
Gallons of Water pe	r Year	188,340.00	-	Gallons of Water per	r Year	62,634.00	_
Cost of Water	TOTAL:	\$273.09	]	Cost of Water	TOTAL:	\$90.82	
UNIDENTIFIED ENERGY COST O	F PRIMARY HEA	TING IS CALCULATED US	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM (	GROUND TEMP: (	GAS {mcf} ELECTRIC {kv	wh) STEAM (psi)
Local Gas Rate:	5.50	(typical 5.50 per n	ncf)				
YEARLY HEATING	COST:	\$958.65	TOTAL	YEARLY HEATING	COST:	\$318.81	TOTAL
Local Sewer Cos	t: .0028	(typical 2.1 per co	-	gallon)			-
YEARLY SEWER C	OST:	\$527.35	TOTAL	YEARLY SEWER C	OST:	\$175.38	TOTAL
Energy Tota	al:	\$3,916.58	]	Energy Tota	al:	\$1,946.43	
Associated Chem	ical Est.:	\$4,068.14	_	<b>Associated Chem</b>	ical Est.:	\$1,352.89	_

Total Cost to End User:

\$3,299.32

\$7,984.72

CALCULATIONS PREPARED FOR: SAMPLE, Low TEMP Conveyor MACHINE											
EL ECTRICAL		Phase: Kw=(E x I	x PF)+k KWH= 1000w/1 hr E= vol								
	art CRS 76			ODEL:		-66 (L)					
Racks Washed Per Day:	1200		Racks Wa	shed Per		1200					
NSF Racks Per Hour:	252	<del></del>	NSF Rack		•	244					
Machine HRS/Operation:	4.76	_	Machine H			4.92					
Local Rate per KWH:	0.0725		Local Rate	•		0.0725					
(US Average .0725)	0.0.20		(US Average .	•		0.000					
Amp	<u>Kw</u>	<u>HP</u>		<u>Amp</u>	<u>Kw</u>	<u>HP</u>					
Voltage: 208v,3ph			Voltage: 208v,3ph								
Pump Motor:	1.49	2	Pump Motor:	5.8	1.12	1.5					
Pump Motor:	0.75	1	Pump Motor:	8	2.24	3					
Pump Motor:			Pump Motor:	0.5	0.22	0.3					
Conveyor Motor:	0.19	0.25	Conveyor Motor:	0.5	0.22	0.3					
Booster (built-in)			Booster (alternate)								
Tank Heater:	20.0		Tank Heater:	28	12.0	16					
Tank Heater:			Tank Heater:	6	2.2	2.9					
KWH	22.42	j	KWH		18.00						
Daily Machine Cost	7.74		Daily Machine Cos	st	\$6.42						
Booster Heater Model:			Booster Heater Me	odel:							
Voltage: 208 amp KWł	H: 0	Rise: 0°	Voltage: 208 amp	KWH:	0	Rise: 0°					
Daily Booster Cost	\$0.00		Daily Booster Cost		\$0.00	•					
Daily Machine & Booster	7.74		Daily Machine & Boo	ster	\$6.42	•					
Cost Per Month	235.42	<del></del> 1	Cost Per Month		\$195.27	1					
Electrical Cost Per Year	\$2,825.04		Electrical Cost Pe	r Year	\$2,343.24						
WATER AND SEWER	USAGE	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	37 = ft³							
Local Water Cost: .0014	-	Primary	Heating Capacity	-	Temp Set @	140°					
(typical 1.09 ccf or .00145 per gallon)		(GPH recover	<b>-</b> • •		remp oct @	1-10					
		312	NSF (GPH) Water C	onoumnt.	ioni	120					
NSF (GPH) Water Consum	1485.12	312	` '	•	590,40	120					
Gallons of Water per Day			Gallons of Water per Gallons of Water per	-		•					
Gallons of Water per Year	542,068.80 .: \$786.00		Cost of Water	TOTAL:	215,496.00 \$312.47	1					
Cost of Water TOTAL		<u>.</u>									
UNIDENTIFIED ENERGY COST OF PRIMARY HI			LOCAL RATES AT A 70° RISE FROM G	ROUND IEMP:	GAS (mct) ELECTRIC (R	VN) STEAM (PSI)					
Local Gas Rate: 5.50	(typical 5.50 per					1					
YEARLY HEATING COST:	\$2,759.13	<b>≟</b>	YEARLY HEATING	COST:	\$1,096.87	TOTAL					
Local Sewer Cost: .0028						1					
YEARLY SEWER COST:	\$1,517.79	TOTAL	YEARLY SEWER CO	UST:	\$603.39	TOTAL					
Energy Total:	\$7,887.96		Energy Tota	al:	\$4,355.97						
Associated Chemical Est.	: \$13,663.39		<b>Associated Chemi</b>	ical Est.:	\$5,431.79	<del>.</del>					
Total Cost to End User:	\$21,551.35	_	Total Cost to End	d User:	\$9,787.76	=					

#### COMPARISON FOR COMMERCIAL DISHMACHINES

CALCULATIONS				VIERCIAL DISHIV SAMPLE,		P CONVEYORS	
ELECTRICAL	3 Phase: Kw=(1	.73 x E x 1 x PF)÷k 1	Phase: Kw=(E x 1	x PF)÷k KWH= 1000w/1 hr E=	volts 1= ampere	es HP≃ .0746 Kw	
MODEL:	Но	bart CRS-8	36A	M	ODEL:	ADC	-66
Racks Washed Per I	Day:	350		Racks Wa	shed Per	Day:	350
NSF Racks Per Hou	r:	248	<b>-</b>	NSF Racks Per Hour:			244
Machine HRS/Operation: 1.41			<del>-</del>	Machine I	HRS/Opera	ation:	1.43
Local Rate per KWH: 0.0725			_		e per KWH	<del>1</del> :	0.0725
(US Average .0725)				(US Average	.0725)		
ī	<u>Amp</u>	<u>Kw</u>	<u>HP</u>		Amp	Kw	HP
Voltage: 208v/3ph		1 10		Voltage: 208v/3ph		4 40	
Pump Motor:	5	1.49	2	Pump Motor:	5.8	1.12	1.5
Pump Motor:	3	0.75	1	Pump Motor:	8	2.24	3
Pump Motor:	0.5	0.40	0.25	Pump Motor:	0.5	0.22	0.3
Conveyor Motor:	0.5	0.19	0.25	Conveyor Motor:	0.5	0.22	0.3
Booster (built-in) Tank Heater:		15.0		Booster (alternate) Tank Heater:	46	18.0	
Tank Heater:		15.0		Tank Heater:	6	2.2	
KWH		32.42		KWH	L	24.00	
Daily Machine Co	st	\$3.31	_	Daily Machine Co	st	\$2.49	1
Booster Heater M		Hatco C-27		Booster Heater M		Hatco C-12	
Voltage: 208 amp	KWH:		Rise: 40°	Voltage: 208 amp	KWH:		Rise: 40°
Daily Booster Cost	,	\$2.76	-	Daily Booster Cost		\$1.24	-
Daily Machine & Boo	ster	6.07	_	Daily Machine & Boo	oster	\$3.73	•
Cost Per Month		184.63	=	Cost Per Month		\$113.45	-
Electrical Cost Pe	r Year	\$2,215.56		Electrical Cost Pe	er Year	\$1,361.42	
WATER AND S	EWER L	JSAGE	CCF = 100 ft <sup>3</sup>	CCF x 748.051 = gal. Gal.	x .1337 = ft³		
Local Water Cost				Heating Capacity	-	Temp Set @	140°
(typical 1.09 ccf or .00145			(GPH recover	,	<b>&gt;</b>		400
NSF (GPH) Water C	-		278	NSF (GPH) Water (	•		120
Gallons of Water per	-	391.98	_	Gallons of Water pe	•	171.60	-
Gallons of Water per		143,072.70		Gallons of Water pe	TOTAL:	62,634.00	1
Cost of Water	TOTAL:	\$207.46	ICIAIC TADI ES AND	Cost of Water		\$90.82	whi STEAM (noil
				LOCAL RATES AT A 70' RISE PROM	GROOND TEMP.	SAS (MCI) ELECTRIC (A)	will Straw (bad
Local Gas Rate: YEARLY HEATING		\$728.24	TOTAL	YEARLY HEATING	COST:	\$318.81	TOTAL
Local Sewer Cost	t: .0028	(typical 2.1 per co	_ cf <u>or</u> .0028 per (	gallon)			-
YEARLY SEWER C	OST:	\$400.60	TOTAL	YEARLY SEWER C	OST:	\$175.38	TOTAL
Energy Tota	al:	\$3,551.86	1	Energy Tot	al:	\$1,946.43	
Associated Chemi	ical Est.:	\$3,090.37	_	Associated Chem	ical Est.:	\$1,352.89	_

**Total Cost to End User:** 

\$3,299.32

\$6,642.23

CALCULATION	S PREPAR	ED FOR:		SAMPLE, HIGH TEMP CONVEYORS				
ELECTRICAL	3 Phase: Kw=(1	.73 x E x 1 x PF)+k 1	Phase: Kw=(E x 1 >	< PF)+k KWH= 1000w/1 hr E= vo	its 1= amperes	HP= ,0746 Kw		
MODEL:	Но	bart CPW1	00A	M	ODEL:	ADC	-66	
Racks Washed Per	Day:	350		Racks Washed Per Day: 3				
NSF Racks Per Hou	r:	248	•	NSF Racks Per Hour:				
Machine HRS/Opera	ation:	1.41	•	Machine H	IRS/Oper	ation:	1.43	
Local Rate per KWH	<b>l</b> :	0.0725	=	Local Rate	e per KWF	<del>-</del> 1:	0.0725	
(US Average .0725)			(US Average .0725)					
	<u>Amp</u>	Kw	<u>HP</u>		<u>Amp</u>	Kw	<u>HP</u>	
Voltage: 208v/3ph				Voltage: 208v/3ph				
Pump Motor:		1.49	2	Pump Motor:	8	2.24	3	
Pump Motor:		1.49	2	Pump Motor:	5.8	1.12	1.5	
Pump Motor:		1.49	2	Pump Motor:	0.5	0.22	0.3	
Conveyor Motor:		0.12	1/6	Conveyor Motor:	0.5	0.22	0.3	
Booster (built-in)				Booster (alternate)				
Tank Heater:		15.0		Tank Heater:	46	18.0		
Tank Heater:		10.0		Tank Heater:	6	2.2		
KWH		29.60	J	KWH		24.00		
Daily Machine Co	st	\$3.03		Daily Machine Co	st	\$2.49		
Booster Heater M	lodel:	Hatco C-27		Booster Heater M	odel:	Hatco C-15		
Voltage: 208 amp	KWH:	27	Rise: 40°	Voltage: 208 amp	KWH:	15	Rise: 40°	
Daily Booster Cost		\$2.76		Daily Booster Cost		\$1.56		
Daily Machine & Boo	oster	5.79	_	Daily Machine & Boo	ster	\$4.05	•	
Cost Per Month		176.11	<b>.</b>	Cost Per Month		\$123.18	•	
Electrical Cost Pe	er Year	\$2,113.32		Electrical Cost Pe	r Year	\$1,478.22		
WATER AND S	EWER (	<u>JSAGE</u>	CCF = 100 ft <sup>3</sup>	CCF x 748.051 = gal. Gal. x	1337 = ft³			
Local Water Cost (typical 1.09 ccf or .00145			Primary H	eating Capacity Rate:) 100	•	Temp Set @	140°	
NSF (GPH) Water C	Consumpt	ion:	278	NSF (GPH) Water C	onsumpt	tion:	120	
Gallons of Water pe	r Day	391.98		Gallons of Water per	<sup>-</sup> Day	171.60		
Gallons of Water pe	r Year	143,072.70	-	Gallons of Water per	Year	62,634.00	•	
Cost of Water	TOTAL:	\$207.46		Cost of Water	TOTAL:	\$90.82		
UNIDENTIFIED ENERGY COST	OF PRIMARY HEA	ITING IS CALCULATED U	ISING TABLES AND I	OCAL RATES AT A 70° RISE FROM G	ROUND TEMP: G	GAS (mcf) ELECTRIC (kw	h) STEAM (psi)	
Local Gas Rate:	5.50	(typical 5.50 per n	ncf)					
YEARLY HEATING	COST:	\$728.24	TOTAL	YEARLY HEATING	COST:	\$318.81	TOTAL	
Local Sewer Cos	t: .0028	(typical 2.1 per co	- f <u>or</u> .0028 per ga	allon)			_	
YEARLY SEWER C	OST:	\$400.60	TOTAL	YEARLY SEWER C	OST:	\$175.38	TOTAL	
Energy Tota	al:	\$3,449.62		Energy Tota	al;	\$2,063.22		
<b>Associated Chem</b>	ical Est.:	\$3,090.37	•	<b>Associated Chemi</b>	ical Est.:	\$1,352.89	•	
Total Cost to En	d User:	\$6,539.99	•	Total Cost to En	d User:	\$3,416.12	-	

#### COMPARISON FOR COMMERCIAL DISHMACHINES

	COMPA	ARISON FO	OR COM	IERCIAL DISHM	ACHINE	ES	
CALCULATION	S PREPARE	D FOR:		SAMPLE, F	IIGH TEMF	CONVEYOR	
<u>ELECTRICAL</u>	3 Phase: Kw=(1.	73 x E x l x PF)+k 1 l	Phase: Kw=(E x I >	(PF)+k KWH= 1000w/1 hr E= vo	lts I= amperes	HP= .07457 Kw, Kv	x 1.341=hp
MODEL:	Ja	ickson, ES	4400	M	ODEL:	ADS, A	ADC-66
Racks Washed Per	Day:	350		Racks Washed Per Day:			350
NSF Racks Per Hou	r:	248		NSF Racks Per Hour:			
Machine HRS/Opera	Machine HRS/Operation: 1.41			Machine H	IRS/Opera	ation:	1.43
'	Local Rate per KWH: 0.0725 (US Average .0725)			Local Rate per KWH:  (US Average .0725)			0.0725
,	<u>Amp</u>	<u>Kw</u>	HP.		Amp	<u>Kw</u>	HP
Voltage: 208v,3ph			1	Voltage: 208v,3ph			
Pump Motor:	5	1.49	2	Pump Motor:	5.8	1.12	1.5
Pump Motor:				Pump Motor:	8	2.24	3
Pump Motor:				Pump Motor:	0.5	0.22	0.3
Conveyor Motor:	0.5	0.19	0.25	Conveyor Motor:	0.5	0.22	0.3
Booster (built-in)				Booster (alternate)			
Tank Heater:		15.0		Tank Heater:		18.0	
Tank Heater:				Tank Heater:		2.2	
KWH		16.68		KWH		24.00	
Daily Machine Co	st	\$1.70	_	Daily Machine Co	st	\$2.49	
Booster Heater N	lodel:	Hatco C-24		Booster Heater M	odel:	Hatco C-15	5
Voltage: 208 amp	KWH:	24	Rise: 40°	Voltage: 208 amp	KWH:	15	Rise: 40°
Daily Booster Cost		\$2.45	-	Daily Booster Cost		\$1.56	
Daily Machine & Bo	oster	4.15	_	Daily Machine & Boo	ster	\$4.05	
Cost Per Month		126.23	- -	Cost Per Month		\$123.18	
Electrical Cost Po	er Year	\$1,514.76		Electrical Cost Pe	r Year	\$1,478.22	
WATER AND S	EWER L	<u>JSAGE</u>	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	337 = ft <sup>3</sup>		
Local Water Cost			Primary I	Heating Capacity	-	Гетр Set @	140°
(typical 1.09 ccf or .00145 NSF (GPH) Water (		ion:	234	NSF (GPH) Water C	onsumpt	ion:	120
Gallons of Water pe		329.94		Gallons of Water per	•	171.60	
Gallons of Water pe	<u>-</u>	120,428.10	-	Gallons of Water pe	•	62,634.00	<del>_</del>
Cost of Water	TOTAL:	\$174.62	7	Cost of Water	TOTAL:	\$90.82	
			⊥ ISING TABLES AND	LOCAL RATES AT A 70° RISE FROM (			 (kwh) STEAM (psi)
Local Gas Rate:		(typical 5.50 per r					
YEARLY HEATING		\$612.98	TOTAL	YEARLY HEATING	COST:	\$318.81	TOTAL
Local Sewer Cos	t: .0028	(typical 2.1 per co	cf <u>or</u> .0028 per	gallon)			·····
YEARLY SEWER C	OST:	\$337.20	TOTAL	YEARLY SEWER C	OST:	\$175.38	TOTAL
Energy Tot	al:	\$2,639.56		Energy Tota		\$2,063.22	
Associated Chem	ical Est.:	\$2,601.25		Associated Chem	ical Est.:	\$1,352.89	_

\$5,240.81

Total Cost to End User:

Total Cost to End User:

\$3,416.12

CALCULATION			JR COM	VIERCIAL DISHIVI SAMPLE, I		ES P CONVEYORS	
ELECTRICAL	3 Phase: Kw=(1	i.73 x E x 1 x PF)÷k 1	Phase: Kw=(E x 1	i x PF)+k KWH= 1000w/1 hr E= v	rolts 1= ampere	es HP= .0746 Kw	
MODEL:	Jac	ckson, AJ-	66	M	ODEL:	ADC	-66
Racks Washed Per	Dav:	350		Racks Wa	shed Per	Dav:	350
NSF Racks Per Hou	•	287	-	NSF Rack		•	244
Machine HRS/Opera		1.22	•	Machine H			1.43
Local Rate per KWH: 0.0725			-	Local Rate	· ·		0.0725
(US Average .0725)					.0725)		
	<u>Amp</u>	<u>Kw</u>	HP		<u>Amp</u>	<u>Kw</u>	HP
Voltage: 208v/3ph	1			Voltage: 208v/3ph			
Pump Motor:	5	1.49	2	Pump Motor:	5.8	1.12	1.5
Pump Motor:	5	1.49	2	Pump Motor:	8	2.24	3
Pump Motor:	3	0.75	1	Pump Motor:	0.5	0.22	0.3
Conveyor Motor:	0.5	0.19	0.25	Conveyor Motor:	0.5	0.22	0.3
Booster (built-in)				Booster (alternate)			
Tank Heater:		10.0		Tank Heater:	46	18.0	
Tank Heater:		15.0		Tank Heater:	6	2.2	
KWH		28.92		KWH		24.00	
Daily Machine Co	st .	\$2.56		Daily Machine Co	st	\$2.49	
Booster Heater N	lodel:	Internal		Booster Heater M	odel:	Hatco C-15	
Voltage: 208 amp	KWH:	34.6	Rise: 40°	Voltage: 208 amp	KWH:	15	Rise: 40°
Daily Booster Cost		\$3.06	<del></del>	Daily Booster Cost		\$1.56	-
Daily Machine & Bo	oster	5.62	_	Daily Machine & Boo	ster	\$4.05	
Cost Per Month		170.95	_	Cost Per Month		\$123.18	-
Electrical Cost Po	er Year	\$2,051.40		Electrical Cost Pe	er Year	\$1,478.22	]
WATER AND S	EWER L	<u>JSAGE</u>	CCF = 100 ft <sup>3</sup>	CCF x 748.051 = gal. Gal. x	c .1337 = ft³		
Local Water Cost (typical 1.09 ccf or .00145			Primary I (GPH recover	Heating Capacity Rate:) 100	•	Temp Set @	140°
NSF (GPH) Water (	Consumpt	ion:	222	NSF (GPH) Water C	onsumpt	tion:	120
Gallons of Water pe	r Day	270.84		Gallons of Water per	r Day	171.60	
Gallons of Water pe	r Year	98,856.60	•••	Gallons of Water per	r Year	62,634.00	•
Cost of Water	TOTAL:	\$143.34		Cost of Water	TOTAL:	\$90.82	
UNIDENTIFIED ENERGY COST (	OF PRIMARY HEAT	TING IS CALCULATED U	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM C	GROUND TEMP:	GAS (mcf) ELECTRIC (ki	wh) STEAM (psi)
Local Gas Rate:		(typical 5.50 per i	7	VEADLY LEATING	COCT	<b>6040.04</b>	TOTAL
YEARLY HEATING		\$503.18	TOTAL	YEARLY HEATING	COST:	\$318.81	TOTAL
Local Sewer Cos		(typical 2.1 per co	of <u>or</u> .0028 per ( TOTAL	gallon) YEARLY SEWER C	∩sT·	\$175.38	TOTAL
YEARLY SEWER C			JIOIAL				J'OIAL 1
Energy Tot		\$2,974.72		Energy Tota		\$2,063.22	
Associated Chem		\$2,135.30	<b>-</b>	Associated Chemi		\$1,352.89	<del>-</del>
Total Cost to En	d User:	\$5,110.02	_	Total Cost to En	a User:	\$3,416.12	<del>-</del>

#### COMPARISON FOR COMMERCIAL DISHMACHINES

CALCULATION		-	JR COM	MERCIAL DISHM		ES P CONVEYORS	·
ELECTRICAL			Phase: Kw=(F x 1	1 x PF)÷k KWH= 1000w/1 hr E= v			
MODEL:		ckson, AJ-			ODEL:	ADC	-66
Racks Washed Per	 Day:	350		Racks Wa	shed Per	Day:	350
NSF Racks Per Hou	ır:	287	-	NSF Rack	s Per Hou	ır:	244
Machine HRS/Opera	Machine HRS/Operation: 1.22			Machine H	łRS/Oper	ation:	1.43
Local Rate per KWH (US Average .0725)	<b>l</b> :	0.0725	-	Local Rate (US Average	•	<del>1</del> :	0.0725
(***	Amp	Kw	<u>HP</u>	(v v v v v	Amp	Kw	<u>HP</u>
Voltage: 208v/3ph				Voltage: 208v/3ph			
Pump Motor:	5	1.49	2	Pump Motor:	5.8	1.12	1.5
Pump Motor:	5	1.49	2	Pump Motor:	8	2.24	3
Pump Motor:	3	0.75	1	Pump Motor:	0.5	0.22	0.3
Conveyor Motor:	0.5	0.19	0.25	Conveyor Motor:	0.5	0.22	0.3
Booster (built-in)				Booster (alternate)			
Tank Heater:		10.0		Tank Heater:	46	18.0	
Tank Heater:		15.0		Tank Heater:	6	2.2	
KWH		28.92		KWH		24.00	
Daily Machine Co	st	\$2.56		Daily Machine Co	st	\$2.49	
Booster Heater N	lodel:	Internal		Booster Heater M	odel:	Hatco C-15	
Voltage: 208 amp	KWH:	34.6	Rise: 40°	Voltage: 208 amp	KWH:	15	Rise: 40°
Daily Booster Cost		\$3.06	_	Daily Booster Cost		\$1.56	•
Daily Machine & Bo	oster	5.62	_	Daily Machine & Boo	ster	\$4.05	<u>-</u>
Cost Per Month		170.95	_	Cost Per Month \$123.18			_
Electrical Cost Po	er Year	\$2,051.40		Electrical Cost Pe	r Year	\$1,478.22	
<u>WATER AND S</u>	EWER (	<u> USAGE</u>	CCF = 100 ft <sup>3</sup>	CCF x 748.051 = gal. Gal. x	( .1337 = ft <sup>3</sup>		
Local Water Cost (typical 1.09 ccf or .00145			Primary I (GPH recover	Heating Capacity Rate:) 100	•	Temp Set @	140°
NSF (GPH) Water (	Consumpt	ion:	222	NSF (GPH) Water C	onsumpt	ion:	120
Gallons of Water pe	r Day	270.84		Gallons of Water per	· Day	171.60	
Gallons of Water pe	r Year	98,856.60	_	Gallons of Water per	Year	62,634.00	
Cost of Water	TOTAL:	\$143.34	- Control of the cont	Cost of Water	TOTAL:	\$90.82	
UNIDENTIFIED ENERGY COST C	F PRIMARY HEA	TING IS CALCULATED U	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM G	GROUND TEMP:	GAS {mcf} ELECTRIC {k	vh) STEAM (psi)
Local Gas Rate:	5.50	(typical 5.50 per r	ncf)				
YEARLY HEATING	COST:	\$503.18	TOTAL	YEARLY HEATING	COST:	\$318.81	TOTAL
Local Sewer Cos	t: .0028	(typical 2.1 per co	– of <u>or</u> .0028 per (	gallon)			-
YEARLY SEWER C	OST:	\$276.80	TOTAL	YEARLY SEWER CO	OST:	\$175.38	TOTAL
Energy Tot	al:	\$2,974.72	The second secon	Energy Tota	al:	\$2,063.22	
Associated Chem	ical Est.:	\$2,135.30	<b>-</b>	Associated Chemi	ical Est.:	\$1,352.89	<del>-</del>

**Total Cost to End User:** 

\$3,416.12

\$5,110.02

#### COMPARISON FOR COMMERCIAL DISHMACHINES

COMPARISON FOR COMMERCIAL DISHMACHINES									
CALCULATIONS PREPARED FOR: SAMPLE, HIGH TEMP CONVEYOR									
ELECTRICAL 3 Phase: Kw=(1.73 x E x I x PF)+k 1 Phase: Kw=(E x I x PF)+k KWH= 1000w/1 hr E= volts I= amperes HP= .07457 Kw, Kw x 1.341=hp									
MODEL:	Já	ackson, ES	4400	M	ODEL:	ADS, A	DC-66		
Racks Washed Per Day: 350			Racks Washed Per Day:			350			
NSF Racks Per Hour: 248		248	_	NSF Racks Per Hour:			244		
Machine HRS/Operation:		1.41	_	Machine HRS/Operation:			1.43		
Local Rate per KWH:		0.0725	_	Local Rate per KWH:		<del>1</del> :	0.0725		
(US Average .0725)				(US Average .0725)					
	Amp	<u>Kw</u>	<u>HP</u>		<u>Amp</u>	<u>Kw</u>	<u>HP</u>		
Voltage: 208v,3ph		1 40		Voltage: 208v,3ph		4.40	4 -		
Pump Motor:	5	1.49	2	Pump Motor:	5.8 8	1.12 2.24	1.5 3		
Pump Motor: Pump Motor:				Pump Motor: Pump Motor:	0.5	0.22	0.3		
Conveyor Motor:	0.5	0.19	0.25	Conveyor Motor:	0.5	0.22	0.3		
Booster (built-in)	0.0	0.19	0.23	Booster (alternate)	0.5	0.22	0.5		
Tank Heater:		15.0		Tank Heater:	***************************************	18.0			
Tank Heater:		10.0		Tank Heater:		2.2			
KWH		16.68		KWH		24.00			
Daily Machine Co	st	\$1.70	j	Daily Machine Co	st	\$2.49	<u> </u>		
Booster Heater Model: Hatco C-24				Booster Heater M		Hatco C-15			
Voltage: 208 amp KWH: 24		Rise: 40°	Voltage: 208 amp	KWH:		Rise: 40°			
Daily Booster Cost		\$2.45	_	Daily Booster Cost		\$1.56	•		
Daily Machine & Boo	oster	4.15	<del></del>	Daily Machine & Boo	ster	\$4.05	•		
Cost Per Month		126.23	=	Cost Per Month		\$123.18	=		
Electrical Cost Pe	er Year	\$1,514.76		Electrical Cost Pe	r Year	\$1,478.22			
WATER AND S	FWER I	JSAGE	CCF = 100 ft <sup>3</sup>	CCF x 7.48 = gal. Gal. x .13	337 = ft³		•		
Local Water Cost			Primary I	Heating Capacity		Temp Set @	140°		
(typical 1.09 ccf or .00145			(GPH recover	- · ·		. o.i.p oot @			
NSF (GPH) Water C	onsumpt	ion:	234	NSF (GPH) Water C	onsumpt	ion:	120		
Gallons of Water pe	r Day	329.94	_	Gallons of Water per	· Day	171.60			
Gallons of Water pe	r Year	120,428.10	-	Gallons of Water per	· Year	62,634.00	•		
Cost of Water	TOTAL:	\$174.62		Cost of Water	TOTAL:	\$90.82			
UNIDENTIFIED ENERGY COST O	F PRIMARY HEAT	TING IS CALCULATED U	- SING TABLES AND	LOCAL RATES AT A 70° RISE FROM C	ROUND TEMP:	GAS (mcf) ELECTRIC (ki	wh} STEAM {psi}		
Local Gas Rate:	5.50	(typical 5.50 per r	ncf)						
						TOTAL			
Local Sewer Cost: .0028 (typical 2.1 per ccf or .0028 per gallon)									
YEARLY SEWER COST: \$337.20 TO			TOTAL	YEARLY SEWER C	OST:	\$175.38	TOTAL		
<del></del>	Energy Total: \$2,639.56					\$2,063.22			
Associated Chem	ical Est.:	\$2,601.25	_	Associated Chemi	cal Est.:	\$1,352.89	_		

Total Cost to End User:

\$3,416.12

\$5,240.81

#### COMPARISON FOR COMMERCIAL DISHMACHINES

			OR COM	MERCIAL DISHM				
CALCULATIONS	S PREPAR	ED FOR:		SAMPLE, HIGH TEMP CONVEYORS				
<u>ELECTRICAL</u>	3 Phase: Kw=(1	.73 x E x 1 x PF)÷k 1	Phase; Kw=(E x 1	ixPF)÷k KWH=1000w/1 hr E⇒v	olts 1= ampere	es HP= .0746 Kw		
MODEL:	CMA 66-H			MODEL:		ADC	ADC-66	
Racks Washed Per Day: 350			Racks Washed Per Day:			350		
NSF Racks Per Hour: 205		-	NSF Racks Per Hour:			244		
Machine HRS/Operation: 1.71		•	Machine HRS/Operation:			1.43		
Local Rate per KWH: 0.0		0.0725	•	Local Rate per KWH:			0.0725	
(US Average .0725)				(US Average .0725)				
,	Amp	<u>Kw</u>	HP	г	<u>Amp</u>	Kw	<u>HP</u>	
Voltage: 208v/3ph				Voltage: 208v/3ph				
Pump Motor:	3.2	0.75	1	Pump Motor:	5.8	1.12	1.5	
Pump Motor:	3.2	0.75	1	Pump Motor:	8	2.24	3	
Pump Motor:	3.2	0.75	1	Pump Motor:	0.5	0.22	0.3	
Conveyor Motor:	0.5	0.22	0.3	Conveyor Motor:	0.5	0.22	0.3	
Booster (built-in)		10.0		Booster (alternate)	40	40.0		
Tank Heater:		10.0		Tank Heater: Tank Heater:	46 6	18.0 2.2		
Tank Heater:		12.46		KWH	0	24.00		
			]	Daily Machine Co	e t	\$2.49	]	
Daily Machine Co		•						
Booster Heater Model: Hatco C-24				Booster Heater Me		Hatco C-12	<b>771</b> 400	
Voltage: 208 amp	KWH:		Rise: 40°	Voltage: 208 amp	KWH:		Rise: 40°	
•	Daily Booster Cost \$2.98		-	Daily Booster Cost	_4	\$1.24	_	
Daily Machine & Boo	oster	4.52 137.34	•	Daily Machine & Boo Cost Per Month	ster	\$3.73 \$113.45	-	
Cost Per Month Electrical Cost Pe	r Voor	\$1,648.08	1	Electrical Cost Pe	r Voor	\$1,361.42	-	
Electrical Cost Fe	i i eai	\$ 1,040.00		Liectifical Cost Fe	i i Çai	Ψ1,501.42	<u>]</u>	
<u>WATER AND S</u>	<u>EWER (</u>	<u>JSAGE</u>	CCF = 100 ft <sup>3</sup>	CCF x 748.051 = gal. Gal. x	$1.1337 = ft^3$			
Local Water Cost (typical 1.09 ccf or .00145			Primary I	Heating Capacity	•	Temp Set @	140°	
NSF (GPH) Water C		ion:	192	NSF (GPH) Water C	onsumpt	tion:	120	
Gallons of Water per	-	328.32		Gallons of Water per	•	171.60	<u> </u>	
Gallons of Water per	•	119,836.80	-	Gallons of Water per	•	62,634.00		
Cost of Water	TOTAL:	\$173.76	.]	Cost of Water	TOTAL:		7	
			] SING TABLES AND	LOCAL RATES AT A 70° RISE FROM G		8. 3 3 5 3	wh) STEAM (psi)	
Local Gas Rate:	5 50	(typical 5.50 per n	ncf)					
YEARLY HEATING COST: \$609.97			TOTAL	YEARLY HEATING	COST:	\$318.81	TOTAL	
Local Sewer Cost		(typical 2.1 per co	3				1	
YEARLY SEWER COST: \$335.54		TOTAL			\$175.38	TOTAL		
Energy Tota	al:	\$2,767.36	1	Energy Tota	al:	\$1,946.43		
Associated Chemi		\$2,588.47		Associated Chemi		\$1,352.89	<b></b>	
	<b>-</b>		-				<del>_</del>	

**Total Cost to End User:** 

\$3,299.32

\$5,355.83

#### COMPARISON FOR COMMERCIAL DISHMACHINES

	COMPA	ARISON FO	OR COM	VIERCIAL DISHM	ACHINI	ES		
CALCULATION	S PREPARI	ED FOR:		SAMPLE, HIGH TEMP CONVEYORS				
ELECTRICAL  3 Phase: Kw=(1.73 x E x 1 x PF)+k 1 Phase: Kw=(E x 1 x PF)+k KWH= 1000w/1 hr E= volts 1= amperes HP= .0746 Kw								
MODEL:	Cham	pion 44KF	PRB66"	MODEL:AD			C-66	
Racks Washed Per Day: 350		_	Racks Washed Per Day:			350		
NSF Racks Per Hour: 201		201		NSF Racks Per Hour:			244	
Machine HRS/Operation:		1.74	_	Machine HRS/Operation:			1.43	
Local Rate per KWH:		0.0725	-	Local Rate per KWH:		ł:	0.0725	
(US Average .0725)				(US Average .0725)				
	Amp	Kw	<u>HP</u>		<u>Amp</u>	Kw	HP	
Voltage: 208v/3ph	<u> </u>	4 40		Voltage: 208v/3ph		4.40		
Pump Motor:	5 3	1.49	2	Pump Motor:	5.8	1.12	1.5 3	
Pump Motor: Pump Motor:	3	0.75	1	Pump Motor: Pump Motor:	<u>8</u> 0.5	2.24 0.22	0.3	
Conveyor Motor:	0.5	0.19	0.25	Conveyor Motor:	0.5	0.22	0.3	
Booster (built-in)	0.0	0.13	0.20	Booster (alternate)	0.0	0.22	0.0	
Tank Heater:		15.0		Tank Heater:	46	18.0		
Tank Heater:				Tank Heater:	6	2.2		
KWH		17.42		KWH		24.00		
Daily Machine Co	st	\$2.20	J	Daily Machine Co	st	\$2.49	J	
Booster Heater M	lodel:	Champ36		Booster Heater Model: Hatco C-12				
		36	Rise: 40°	Voltage: 208 amp	KWH:	12	Rise: 40°	
		\$4.54	-	Daily Booster Cost		\$1.24	-	
Daily Machine & Boo	oster	6.74	<b>.</b>	Daily Machine & Boo	ster	\$3.73	•	
Cost Per Month		205.05	<del>-</del> -	Cost Per Month		\$113.45	-	
Electrical Cost Pe	er Year	\$2,460.60		Electrical Cost Pe	r Year	\$1,361.42		
WATER AND S	EWER L	JSAGE	CCF = 100 ft <sup>3</sup>	CCF x 748.051 = gal. Gal. >	c .1337 = ft³			
Local Water Cost	: .00145		Primary I	leating Capacity	-	Γemp Set @	140°	
(typical 1.09 ccf or .00145	per gallon)		(GPH recover	Rate:) 100				
NSF (GPH) Water 0	Consumpt	ion:	324	NSF (GPH) Water Consumption:			120	
Gallons of Water pe	r Day	563.76		Gallons of Water per	r Day	171.60	_	
Gallons of Water pe	r Year	205,772.40	<del>-</del> 	Gallons of Water per	r Year	62,634.00	<u>-</u> _	
Cost of Water	TOTAL:	\$298.37		Cost of Water	TOTAL:	\$90.82		
UNIDENTIFIED ENERGY COST C	F PRIMARY HEAT	TING IS CALCULATED U	SING TABLES AND	LOCAL RATES AT A 70° RISE FROM (	GROUND TEMP: (	GAS (mcf) ELECTRIC (k	wh) STEAM (psi)	
Local Gas Rate:	5.50	(typical 5.50 per r	ncf)					
			TOTAL	YEARLY HEATING	COST:	\$318.81	TOTAL	
Local Sewer Cost: .0028 (typical 2.1 per ccf or .0028 per gallon)							_	
YEARLY SEWER C	OST:	\$576.16	]TOTAL	YEARLY SEWER C	OST:	\$175.38	TOTAL	
Energy Total: \$4,382.51				Energy Tota	ai:	\$1,946.43		
Associated Chemical Est.: \$4,444.68				Associated Chem	ical Est.:	\$1,352.89	_	

**Total Cost to End User:** 

\$3,299.32

\$8,827.20

#### COMPARISON FOR COMMERCIAL DISHMACHINES

COMPARISON FOR COMMERCIAL DISHMACHINES									
CALCULATIONS PREPARED FOR: SAMPLE, HIGH TEMP CONVEYOR									
<u>ELECTRICAL</u>	3 Phase: Kw=(1	,73 x E x l x PF)÷k 1	Phase: Kw=(E x I	x PF)+k KWH= 1000w/1 hr E= vo	oits I= amperes	HP= .07457 Kw, Kw	c 1.341=hp		
MODEL:	SCT-66S (Stero)			MODEL: ADS,			DC-66		
Racks Washed Per Day: 350				Racks Washed Per Day:			350		
NSF Racks Per Hour: 209		_	NSF Racks Per Hour:			244			
Machine HRS/Operation: 1.67		_	Machine HRS/Operation:			1.43			
Local Rate per KWH: 0.072		0.0725	_	Local Rate per KWH:			0.0725		
(US Average .0725)			-	(US Average .0725)					
,	<u>Amp</u>	<u>Kw</u>	<u>HP</u>	,	<u>Amp</u>	Kw	HP		
Voltage: 208v,3ph				Voltage: 208v,3ph					
Pump Motor:		0.75	1	Pump Motor:		1.12	1.5		
Pump Motor:	5	1.49	2	Pump Motor:	88	2.24	3		
Pump Motor:		0.19	0.25	Pump Motor:	0.5	0.22	0.3		
Conveyor Motor:	0.5	0.19	0.25	Conveyor Motor:	0.5	0.22	0.3		
Booster (built-in)		40.0		Booster (alternate)		40.0	1		
Tank Heater:		10.0 20.0		Tank Heater:		18.0 2.2			
Tank Heater:				Tank Heater: KWH		24.00			
MWH 32.61 Daily Machine Cost \$3.95			]	Daily Machine Co	et	\$2.49	]		
-					Booster Heater Model: Hatco C-15				
	Booster Heater Model: Hatco C-30		Rise: 40°		KWH:		Rise: 40°		
Voltage: 208 amp	KWH:	30	NISC. 40	Voltage: 208 amp	KVVI 1.		1056. 40		
Daily Booster Cost	ntor	\$3.63 7.58	-	Daily Booster Cost Daily Machine & Boo	retor	\$1.56 \$4.05	-		
Daily Machine & Boo Cost Per Month	ostei	230.55	=	Cost Per Month	JSICI	\$123.18	_		
Electrical Cost Pe	r Voar	\$2,766.60		Electrical Cost Pe	r Year	\$1,478.22	1		
	1	<u> </u>	]			( Y ( ) 7 ( Y ( A ) )			
WATER AND S		JSAGE		CCF x 7.48 = gal. Gal. x .13					
Local Water Cost (typical 1.09 ccf or .00145			Primary I (GPH recover	Heating Capacity Rate:) 100	·	Temp Set @	140°		
NSF (GPH) Water C	onsumpti	ion:	290	NSF (GPH) Water Consumption:			120		
Gallons of Water per	<sup>-</sup> Day	484.30		Gallons of Water per	r Day	171.60			
Gallons of Water per	Year	176,769.50	-	Gallons of Water per	r Year	62,634.00	-		
Cost of Water	TOTAL:	\$256.32		Cost of Water	TOTAL:	\$90.82			
UNIDENTIFIED ENERGY COST O	F PRIMARY HEAT	ING IS CALCULATED U	- SING TABLES AND	LOCAL RATES AT A 70° RISE FROM C	GROUND TEMP:	GAS (mcf) ELECTRIC (ki	wh) STEAM (psi)		
Local Gas Rate:	5 50	(typical 5.50 per r	ncf)						
YEARLY HEATING		\$899.76	TOTAL	YEARLY HEATING	COST:	\$318.81	TOTAL		
Local Sewer Cost: .0028 (typical 2.1 per ccf or .0028 per gallon)							4		
YEARLY SEWER COST: \$494.95		TOTAL	YEARLY SEWER C	OST:	\$175.38	TOTAL			
Energy Total: \$4,417.63				Energy Tota	al:	\$2,063.22			
Associated Chemical Est.: \$3,818.22				Associated Chemi	ical Est.:	\$1,352.89	_		

\$8,235.85

**Total Cost to End User:** 

**Total Cost to End User:** 

\$3,416.12

#### COMPARISON FOR COMMERCIAL DISHMACHINES

COMPARISON FOR COMMERCIAL DISHMACHINES									
CALCULATIONS PREPARED FOR:				SAMPLE, Chemical sanitizer CONVEYOR					
ELECTRICAL  3 Phase: Kw=(1.73 x E x i x PF)+k 1 Phase: Kw=(E x i x PF)+k KWH= 1000w/1 hr E= volts I= amperes HP= .07457 Kw, Kw x 1.341=hp									
MODEL:	MODEL: Champion KL66 (L)				ODEL:	ADS, ADO	C-66 (L)		
Racks Washed Per Day: 350			Racks Washed Per Day:			350			
NSF Racks Per Hou	ır:	200	<b>-</b>	NSF Racks Per Hour:			244		
Machine HRS/Operation:		1.75	_	Machine HRS/Operation:			1.43		
Local Rate per KWH:		0.0725	···	Local Rate per KWH:			0.0725		
(US Average .0725)				(US Average .0725)					
V II	Amp	<u>Kw</u>	<u>HP</u>		Amp	<u>Kw</u>	HE		
Voltage: 208v,3ph		446		Voltage: 208v,3ph					
Pump Motor:	5	1.49	2	Pump Motor:	5.8	1.12	1.5		
Pump Motor:		0.75	- 4	Pump Motor:	8	2.24	3		
Pump Motor:	0.5	0.75	0.25	Pump Motor:	0.5	0.22	0.3		
Conveyor Motor: Booster (built-in)	0.0	0.19	0.25	Conveyor Motor: Booster (alternate)	0.5	0.22	0.3		
Tank Heater:		10.0		Tank Heater:		18.0			
Tank Heater:		10.0		Tank Heater:		2.2			
KWH		12.42		KWH		24.00			
Daily Machine Co	st	\$1.58		Daily Machine Co	st	\$2.49			
Booster Heater M		None Neede	d	Booster Heater Model: None Needed					
Voltage: 208 amp KWH: 0			Rise: 0°	Voltage: 208 amp	KWH:		Rise: 0°		
Daily Booster Cost	1 ( ) ( ) ( )	\$0.00	-	Daily Booster Cost	124411.	\$0.00	11130.0		
Daily Machine & Boo	nster	1.58	_	Daily Machine & Boo	eter	\$2.49			
Cost Per Month	30(0)	48.06	•••	Cost Per Month	,5t01	\$75.74	•		
		\$576.72	1	Electrical Cost Pe	r Year	\$908.83			
			J . CCE = 100 83			7000.00			
WATER AND S		JSAGE		CCF x 7.48 = gal. Gal. x .13					
Local Water Cost (typical 1.09 ccf or .00145			(GPH recover	Heating Capacity  Rate:) 100	•	Геmp Set @	140°		
NSF (GPH) Water Consumption: 321				NSF (GPH) Water C	onsumpt	ion:	120		
Gallons of Water per	r Day	561.75		Gallons of Water per	Day	171.60			
Gallons of Water per	r Year	205,038.75	<b>-</b>	Gallons of Water per	Year	62,634.00			
Cost of Water	TOTAL:	\$297.31		Cost of Water	TOTAL:	\$90.82			
UNIDENTIFIED ENERGY COST OF PRIMARY HEATING IS CALCULATED USING TABLES AND LOCAL RATES AT A 70° RISE FROM GROUND TEMP: GAS (mcf). ELECTRIC (kwh) STEAM (psi)									
Local Gas Rate: 5.50 (typical 5.50 per mcf)									
YEARLY HEATING COST: \$1,043.65		TOTAL	YEARLY HEATING	COST:	\$318.81	TOTAL			
Local Sewer Cost: .0028 (typical 2.1 per ccf or .0028 per gallon)					E	ı			
YEARLY SEWER C	OST:	\$574.11	TOTAL	YEARLY SEWER CO	OST:	\$175.38	TOTAL		
Energy Total: \$2,491.78				Energy Tota	ıl:	\$1,493.84			
Associated Chemi	ical Est.:	\$5,168.21		<b>Associated Chemi</b>	cal Est.:	\$1,578.75			

**Total Cost to End User:** 

\$3,072.59

\$7,659.99