

# DETERMINE POWER PACK SIZE

## USE BTUs INSTEAD OF LENGTH OF RUN

Select the most efficient power pack for a beer system by calculating its total BTU (British Thermal Unit) load. Each power pack's BTU capacity is a numerical expression of the heat it can remove from a beer system as it circulates glycol. Each beer system has a unique BTU load that it exerts on the power pack chilling the glycol. If the exerted BTU load exceeds 60% of a power pack's BTU capacity, the compressor in the unit will need to run longer to maintain the glycol bath temperature. This will overwork the power pack compressor, and ultimately shorten its life. The goal is to have long compressor run times and equal rest times (or as equal as possible). Determining the right power pack to handle a beer system capacity is accomplished with a simple formula.

## BTU FORMULA

Calculate using 100 BTUs per faucet, and trunkline BTUs per foot. Add these totals together and multiply by 1.4 to find the total BTU capacity required.

### EXAMPLE

NO. OF FAUCETS		BTUs	=	TOTAL FAUCETS (A)
14	x	100	=	1400

NO. OF FAUCETS		BTUs	=	TOTAL FAUCETS (A)
	x	100	=	

FEET OF TRUNKLINE		TRUNKLINE BTUs (SEE TABLE BELOW)	=	TOTAL TRUNKLINE (B)
140	x	10.0	=	1400

FEET OF TRUNKLINE		TRUNKLINE BTUs (SEE TABLE BELOW)	=	TOTAL TRUNKLINE (B)
	x		=	

TOTAL SYSTEM BTUs (A+B)	2800
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TOTAL SYSTEM BTUs (A+B)	
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TOTAL SYSTEM BTUs		BTU CAPACITY	=	BTUs POWER PACK MUST PRODUCE
2800	x	1.4	=	3920

TOTAL SYSTEM BTUs		BTU CAPACITY	=	BTUs POWER PACK MUST PRODUCE
	x		=	

In this example the you would round up to the next size power pack at 5,100 BTU's

### 1/4" TRUNKLINE SYSTEMS UP TO 50 FT

PART NO.	BTUs PER FT	PRODUCT LINES
CDI242-BF	5.9	2
CDI442-BF	6.3	4
CDI542-BF	6.5	5
CDI642-BF	6.5	6
CDI842-BF	7.0	8
CDI1044-BF	7.9	10
CDI1244-BF	8.2	12
CDI1644-BF	9.0	16
CDI1042-BF*	7.5	10

### 5/16" TRUNKLINE SYSTEMS UP TO 125 FT

PART NO.	BTUs PER FT	PRODUCT LINES
CDI252-BF	6.0	2
CDI452-BF	6.5	4
CDI552-BF	6.7	5
CDI652-BF	7.1	6
CDI852-BF	7.6	8
CDI1054-BF	8.3	10
CDI1254-BF	8.9	12
CDI1454-BF	9.5	14
CDI1654-BF	9.7	16
CDI2054-BF	10.9	20
CDI2454-BF	10.3	24
CDI1052-BF*	8.4	10

### 3/8" TRUNKLINE SYSTEMS UP TO 750 FT

PART NO.	BTUs PER FT	PRODUCT LINES
CDI232-BF	6.3	2
CDI432-BF	6.8	4
CDI532-BF	7.2	5
CDI632-BF	7.5	6
CDI832-BF	8.0	8
CDI1034-BF	8.9	10
CDI1234-BF	9.5	12
CDI1434-BF	10.0	14
CDI1634-BF	10.5	16
CDI2034-BF	11.0	20
CDI1032-BF*	8.8	10

\*Trunklines supplied with two 1/2" glycol lines