



# BITZER US Vs Standard Ref (XR-0036)

## Condensers Cross reference

Version 1, 7/25/2017

### Purpose & Scope

This document provides a comparison between BITZER US standard condenser models and Standard Refrigeration standard condenser models.

BITZER standard models in this document do not fully encompasses all available BITZER standard models. For additional information, please see standard condenser catalogs.

## Horizontal water-cooled condenser

### Standard ref HSE Vs BITZER STC

Standard ref has 23 models from 2 to 500 horsepower

	Standard Ref	BITZER
3/4" enhanced copper tube	yes	yes
epoxy coated for head	yes	yes
Tube Supports	yes	yes
Orientation of the safety port	Top	45° Allows mounting of compressors
Auxiliary port	no	yes
black paint and primer finish	yes	yes
Shell Side (Refrigerant)	400 psi @ 150°F	400 psi @ 250°F
Tube Side (Water/Fluid)	150 psi @ 150°F	150 psi @ 150°F

Dimensions of the following models are identical to BITZER standard STC condensers:

Standard Ref	BITZER US STANDARD
HSE5	STC005XS
HSE7	STC007XS
HSE10	STC010XS
HSE15	STC015XS
HSE20A	STC020XS
HSE25A	STC025XS
HSE30A	STC030XS
HSE60	STC060XS
HSE70	STC070XS
HSE80	STC080XS
HSE200	STC200XS

BITZER does not have dropping replacement for the following models. Custom models are available upon request.

Please contact [pvcustom@bitzerus.com](mailto:pvcustom@bitzerus.com)

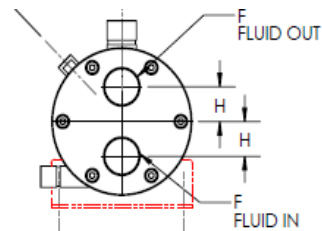
Standard Ref
HSE2
HSE3
HSE300
HSE350
HSE400
HSE500

### Dimensions and Connections that differ

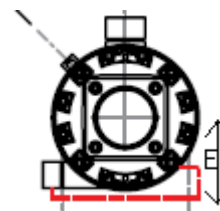
Standard Ref	Refrigerant Inlet	Water I/O	Water I/O	Refrigerant Inlet	BITZER US
HSE125	3-5/8"	5"NPT	SQUARE FLANGE FOR 5" NPS	3-1/8"	STC125

Standard Ref	Water I/O	Water I/O	BITZER US
HSE100	5"NPT	SQUARE FLANGE FOR 5" NPS	STC100

Standard Ref	H	H	BITZER US
HSE40A	2-1/16"	2-1/8"	STC040
HSE50A	2-1/16"	2-1/8"	STC050



Standard Ref	E	E	BITZER US
HSE150	10.88"	10"	STC150
HSE250	12.88"	12"	STC250



**BITZER standard STC condensers capacity:**

Model	R22			R134a			Pumpdown capacity (R22)	Water flow minimum	Water flow maximum
	Total Heat of Rejection	Water pressure drop	Water flow rate	Total heat of Rejection	Water pressure drop	Water flow rate			
Modèle	Réjection de chaleur totale	Perte de pression d'eau	Quantité de débit d'eau	Réjection de chaleur totale	Perte de pression d'eau	Quantité de débit d'eau	Capacité de réfrigérant du réservoir (R22)	Quantité de débit d'eau minimum	Quantité de débit d'eau maximum
Modelos	Calor total de rechazo	Caída de presión de agua	Flujo de agua	Calor total de rechazo	Caída de presión de agua	Flujo de agua	Capacidad de almacenamiento (R22)	Flujo mínimo de agua	Flujo máximo de agua
	Btu/h	psi	gpm	Btu/h	psi	gpm	lbs	gpm	gpm
<b>Standard Models</b>	<b>Standard Modèles</b>			<b>Modelos Standard</b>					
<b>STC005XS-XXX</b>	77,663	1.9	16.0	79,094	1.9	16.0	18.0	6.0	30.0
<b>STC007XS-XXX</b>	108,361	3.8	22.0	112,875	4.1	23.0	22.7	6.0	30.0
<b>STC010XS-XXX</b>	136,912	4.0	28.0	141,802	4.2	29.0	20.9	7.5	37.5
<b>STC015XS-XXX</b>	223,258	4.0	45.0	232,340	4.3	47.0	37.8	12.0	60.0
<b>STC020XS-XXX*</b>	297,677	1.7	60.0	310,307	1.9	63.0	64.6	21.0	105.0
<b>STC025XS-XXX*</b>	433,188	2.1	87.0	446,516	2.3	90.0	58.7	27.0	135.0
<b>STC030XS-XXX*</b>	506,051	2.0	102.0	524,000	2.1	106.0	98.9	33.0	165.0
<b>STC040XS-XXX*</b>	607,459	3.8	122.0	630,084	4.1	127.0	128.0	30.0	150.0
<b>STC050XS-XXX*</b>	831,522	4.2	167.0	858,303	4.5	173.0	117.5	39.0	195.0
<b>STC060XS-XXX</b>	911,189	3.8	183.0	942,645	4.1	190.0	178.0	45.0	225.0
<b>STC070XS-XXX</b>	1,199,982	4.5	241.0	1,235,361	4.8	249.0	168.1	54.0	270.0
<b>STC080XS-XXX</b>	1,304,545	4.3	262.0	1,339,547	4.6	249.0	168.1	60.0	300.0
<b>STC100XS-XXX*</b>	1,682,962	2.0	338.0	1,726,529	2.1	348.0	278.0	102.0	510.0
<b>STC125XS-XXX*</b>	2,235,651	2.1	449.0	2,292,116	2.2	462.0	250.7	132.0	660.0
<b>STC150NS-XXX</b>	2,668,840	2.1	536.0	2,738,631	2.2	552.0	307.8	156.0	780.0
<b>STC200NS-XXX</b>	3,639,780	2.1	731.0	3,730,888	2.2	752.0	385.1	210.0	1050.0
<b>STC250NS-XXX</b>	4,302,011	2.0	864.0	4,420,508	2.1	891.0	496.2	258.0	1290.0

# Horizontal high pressure water-cooled condenser

## Standard ref HSE-MP Vs BITZER HPC

Standard ref has 16 models from 2 to 125 horsepower

	Standard Ref	BITZER
3/4" enhanced Copper tube	yes	yes
epoxy coated for tube sheet	yes	no
epoxy coated for head	yes	yes
Tube Supports	yes	yes
Orientation of the safety port	Top	45° Allows mounting of compressors
Auxiliary port	no	yes
black paint and primer finish	yes	yes
Shell Side (Refrigerant)	600 psi @ 150°F	600 psi @ 250°F
Tube Side (Water/Fluid)	150 psi @ 150°F	150 psi @ 150°F

BITZER does not have dropping replacement for the following model. Custom models are available upon request.

Please contact [pvcustom@bitzerus.com](mailto:pvcustom@bitzerus.com)

Standard Ref
HSE3MP

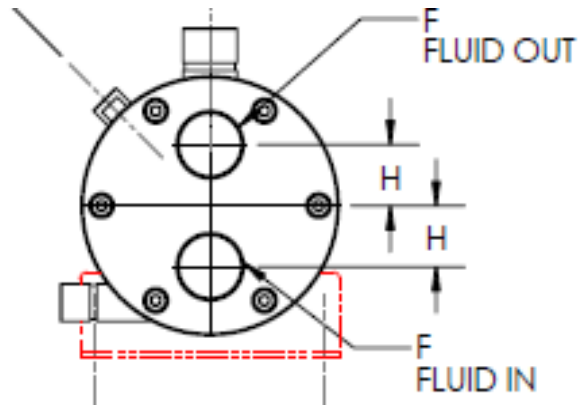
Dimensions of the following models are identical to BITZER standard HPC condensers:

Standard Ref	BITZER US STANDARD
HSE5MP	HPC005XS
HSE7MP	HPC007XS
HSE10MP	HPC010XS
HSE15MP	HPC015XS
HSE20MP	HPC020XS
HSE25MP	HPC025XS
HSE30MP	HPC030XS
HSE60MP	HPC060XS
HSE70MP	HPC070XS
HSE80MP	HPC080XS
HSE100MP	HPC100XS

### Dimensions and Connections that differ

Standard Ref	Refrigerant Inlet	H	H	Refrigerant Inlet	BITZER US
HSE40MP	-	2-1/16"	2-1/8"	-	HPC040XS
HSE50MP	-	2-1/16"	2-1/8"	-	HPC050XS

Standard Ref	Refrigerant Inlet	F	F	Refrigerant Inlet	BITZER US
HSE125MP	3-5/8"	5"NPT	SQUARE FLANGE FOR 5" NPS	3-1/8"	HPC125XS
HSE100MP	-	5"NPT	SQUARE FLANGE FOR 5" NPS	-	HPC100XS



	model	OD	Length	Water Inlet
BITZER US VS Standard Ref	HSE2MP	5.57	27.125	1.125
	HPC002XS	6.625	21.375	1.375

**BITZER standard HPC condensers capacity:**

Model	R22			R410A			Pumpdown capacity (R410A)	Water flow minimum	Water flow maximum
	Total Heat of Rejection	Water pressure drop	Water flow rate	Total heat of Rejection	Water pressure drop	Water flow rate			
Modèle	Réjection de chaleur totale	Perte de pression d'eau	Quantité de débit d'eau	Réjection de chaleur totale	Perte de pression d'eau	Quantité de débit d'eau	Capacité de réfrigérant du réservoir (R410A)	Quantité de débit d'eau minimum	Quantité de débit d'eau maximum
Modelos	Calor total de rechazo	Caída de presión de agua	Flujo de agua	Calor total de rechazo	Caída de presión de agua	Flujo de agua	Capacidad de almacenamiento (R410A)	Flujo mínimo de agua	Flujo máximo de agua
	Btu/h	psi	gpm	Btu/h	psi	gpm	lbs	gpm	gpm
Standard Models			Standard Modèles			Modelos Standard			
HPC002XS-XXX	35,700	1.9	7.2	31,900	1.6	6.4	12.3	3.6	15.0
HPC005XS-XXX	75,000	1.7	15.0	70,000	1.5	14.1	15.9	6.0	30.0
HPC007XS-XXX	106,900	3.6	21.4	98,900	3.2	19.8	20.0	6.0	30.0
HPC010XS-XXX	134,900	3.7	27.2	124,500	3.2	25.1	18.4	7.5	37.5
HPC015XS-XXX	224,300	4.0	45.2	207,400	3.5	41.8	33.3	12.0	60.0
HPC020XS-XXX*	298,700	1.7	60.2	279,800	1.5	55.8	56.8	21.0	105.0
HPC025XS-XXX*	401,900	1.9	81.0	370,100	1.6	76.4	51.7	27.0	135.0
HPC030XS-XXX*	468,000	1.7	94.0	430,100	1.5	87.0	87.1	33.0	165.0
HPC040XS-XXX*	604,600	3.8	125.0	565,600	3.4	114.0	112.7	30.0	150.0
HPC050XS-XXX*	769,000	3.7	155.0	699,600	3.0	140.0	103.4	39.0	195.0
HPC060XS-XXX	909,500	3.8	182.0	858,300	3.4	173.0	156.7	45.0	225.0
HPC070XS-XXX	1,111,300	4.0	224.0	1,020,700	3.4	205.0	148.0	54.0	270.0
HPC080XS-XXX	1,210,600	3.8	244.0	1,110,400	3.2	223.0	141.8	60.0	300.0
HPC100XS-XXX*	1,549,100	1.7	310.0	1,419,100	1.4	285.0	244.8	102.0	510.0
HPC125XS-XXX*	2,048,800	1.7	410.0	1,910,100	1.6	385.0	220.7	132.0	660.0

# Horizontal marine condenser with zinc anodes

## Standard ref MSE-Z Vs BITZER STC\_B

Standard ref has 18 models from 1 to 120 horsepower

Standard ref MSE model is MSE-Z model without Zinc anode

BITZER marine condensers have Zinc anode on all of them

	Standard Ref	BITZER
3/4" enhanced CopperNickel tube	yes	yes
Tube sheet	Cupronickel	Stainless steel
head	brass with/without epoxy coated	stainless steel with/without coating
Tube Supports	yes	yes
Orientation of the safety port	Top	45° Allows mounting of compressors
Auxiliary port	no	yes
black paint and primer finish	yes	yes
Shell Side (Refrigerant)	400 psi @ 150°F	400 psi @ 250°F
Tube Side (Water/Fluid)	150 psi @ 150°F	150 psi @ 150°F

Dimensions of the following models are identical to BITZER standard STC\_B condensers:

Standard Ref	BITZER US
MSE300Z	STC003XB
MSE500Z	STC005XB
MSE1500Z	STC015XB
MSE2005Z	STC020XB
MSE2505Z	STC025XB
MSE4005Z	STC040XB
MSE4505Z	STC045XB
MSE5005Z	STC050XB
MSE6505Z	STC065XB
MSE7505Z	STC075XB

BITZER does not have dropping replacement for the following models. Custom models are available upon request.

Please contact [pvcustom@bitzerus.com](mailto:pvcustom@bitzerus.com)

Standard Ref
MSE100Z
MSE200Z
MSE3305Z
MSE750Z

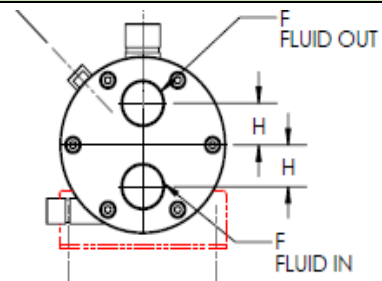
The closest model would be STC035XB

The closest model would be STC007XB

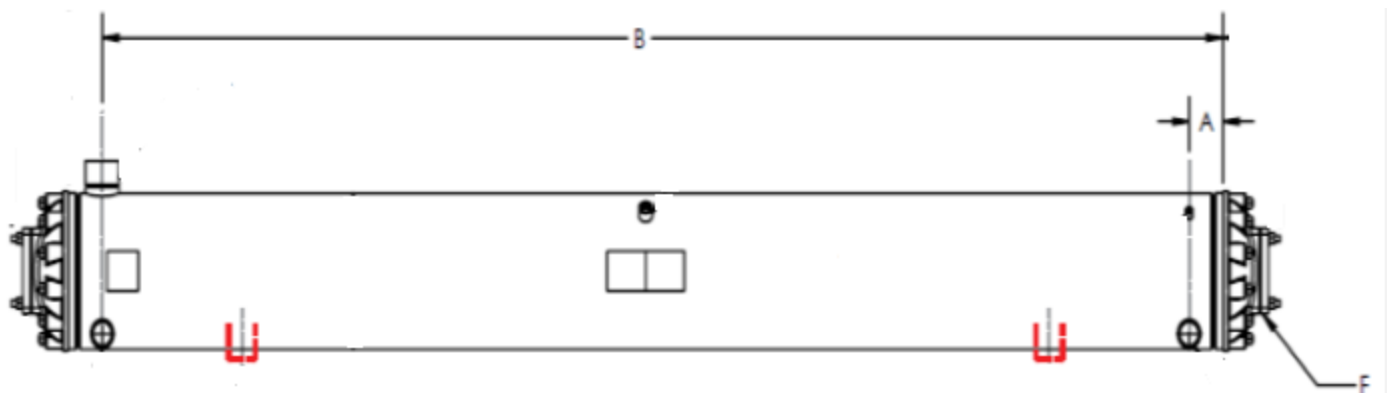
**Dimensions and Connections that differ**

Standard Ref	Water Inlet	H	H	Water Inlet	BITZER US
MSE750Z	3/4"	2"	1-7/8"	1-1/4"	STC007XB

Standard Ref	H	H	BITZER US
MSE1005Z	2"	1-7/8"	STC010XB
MSE3006Z	2"	2-1/8"	STC030XB



	model	F	Refrigerant Inlet	B
BITZER US VS Standard Ref	MSE100HPZ	5" MPT	-	-
	STC100XB	5" NPS	-	-
BITZER US VS Standard Ref	MSE120HPZ	5" MPT	3-5/8"	115.75"
	STC120XB	5" NPS	3-1/8"	116.5"





## BITZER standard STC condensers capacity:

Model	R22			R134a			Pumpdown capacity (R22)	Water flow minimum	Water flow maximum
	Total Heat of Rejection	Water pressure drop	Water flow rate	Total heat of Rejection	Water pressure drop	Water flow rate			
	Réjection de chaleur totale	Perte de pression d'eau	Quantité de débit d'eau	Réjection de chaleur totale	Perte de pression d'eau	Quantité de débit d'eau			
	Calor total de rechazo	Caída de presión de agua	Flujo de agua	Calor total de rechazo	Caída de presión de agua	Flujo de agua			
	Btu/h	psi	gpm	Btu/h	psi	gpm	lbs	gpm	gpm
<b>Marine Models</b>	<b>Marine Modèles</b>			<b>Modelos Marítimos</b>					
<b>STC003XB-XXX</b>	39,118	2.4	8.0	42,236	3.0	9.0	12.8	3.5	17.3
<b>STC005XB-XXX</b>	57,174	3.0	12.0	58,248	3.0	12.0	11.1	4.6	23.1
<b>STC007XB-XXX</b>	98,153	1.5	20.0	102,309	1.7	21.0	19.2	9.2	46.2
<b>STC010XB-XXX</b>	127,133	2.7	26.0	132,023	2.9	27.0	23.3	9.2	46.2
<b>STC015XB-XXX</b>	203,412	2.5	41.0	211,797	2.7	43.0	41.9	15.4	77.0
<b>STC020XB-XXX*</b>	325,083	1.5	66.0	336,151	1.6	68.0	73.9	27.7	138.5
<b>STC025XB-XXX*</b>	386,980	1.4	78.0	400,416	1.5	81.0	67.5	33.8	169.3
<b>STC030XB-XXX*</b>	435,020	2.4	88.0	449,850	2.6	91.0	84.9	30.8	153.9
<b>STC035XB-XXX*</b>	494,340	1.5	100.0	511,013	1.5	101.2	114.0	43.1	215.5
<b>STC040XB-XXX*</b>	533,887	1.5	108.0	550,703	1.5	111.0	110.5	46.1	230.8
<b>STC045XB-XXX*</b>	625,123	2.5	126.0	644,967	2.7	130.0	137.3	43.1	215.5
<b>STC050XB-XXX*</b>	664,813	2.5	134.0	689,619	2.6	139.0	133.2	46.1	230.8
<b>STC065XB-XXX</b>	873,187	2.4	176.0	902,955	2.6	182.0	194.3	61.5	308.0
<b>STC075XB-XXX</b>	982,335	2.5	198.0	1,012,103	2.6	204.0	186.1	67.7	338.5
<b>STC100XB-XXX*</b>	1,637,225	1.4	330.0	1,686,838	1.5	340.0	314.1	135.4	677.0
<b>STC120XB-XXX*</b>	1,805,909	1.5	364.0	1,860,483	1.5	375.0	300.1	147.7	738.5

# High pressure Horizontal marine condenser

Standard ref MSE-MP Vs BITZER HPC\_B

Standard ref has 10 models from 2 to 40 horsepower

	Standard Ref	BITZER
3/4" enhanced CopperNickel tube	yes	yes
custom stainless steel	yes	yes
Tube sheet	Cupronickel	Stainless steel
head	naval brass with/without epoxy coated	stainless steel with/without coating
Zinc anode	no	yes
Custom connection	yes	yes
Orientation of the safety port	Top	45° Allows mounting of compressors
Auxiliary port	no	yes
black paint and primer finish	yes	yes
Shell Side (Refrigerant)	600 psi @ 150°F	600 psi @ 250°F
Tube Side (Water/Fluid)	150 psi @ 150°F	150 psi @ 150°F

BITZER does not have dropping replacement for the following models. Custom models are available upon request.

Please contact [pvcustom@bitzerus.com](mailto:pvcustom@bitzerus.com)

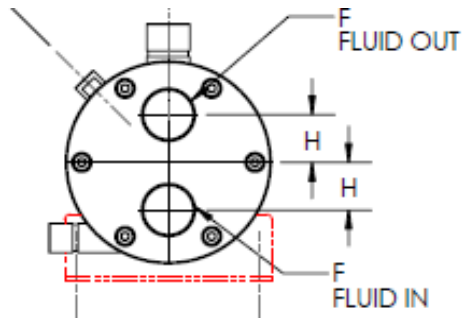
Standard Ref	
MSE200MP	The closest model would be HPC007XB
MSE750MP	
MSE3305MP	

Dimensions of the following models are identical to BITZER standard HPC\_B condensers:

Standard Ref	BITZER US
MSE1500MP	HPC015XB
MSE2005MP	HPC020XB
MSE2505MP	HPC025XB
MSE4005MP	HPC040XB

## Dimensions and Connections that differ

Standard Ref	Water Inlet	H	H	Water Inlet	BITZER US
MSE3006MP	2-1/2"	2"	2-1/8"	2"	HPC030XB



	model	A	Refrigerant Inlet	B
BITZER US VS Standard Ref	MSE500MP	2.06	1-1/8"	15.94
	HPC005XB	2	7/8"	16
BITZER US VS Standard Ref	MSE1005MP	2.5	-	33.5
	HPC010XB	2	-	33

