



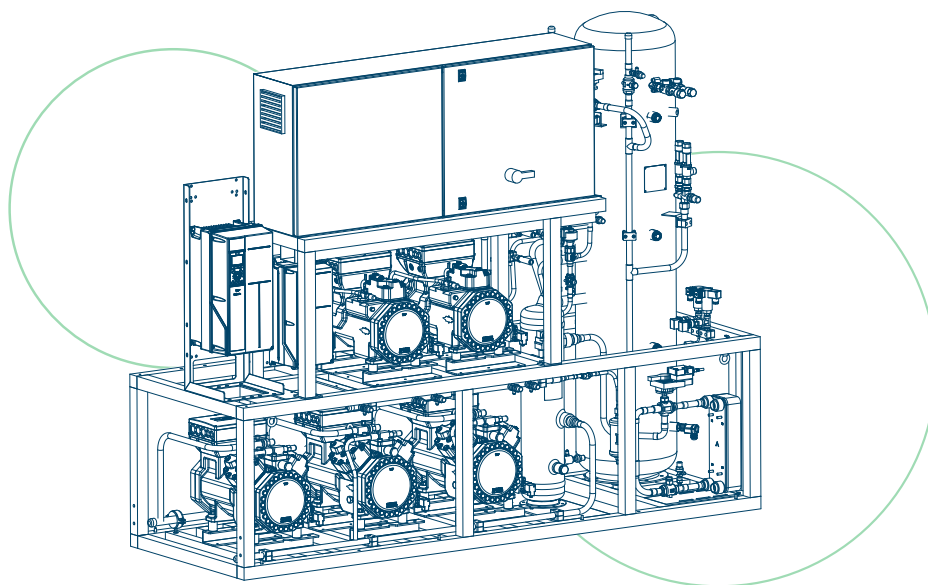
SUSTAINABLE COLD SOLUTIONS

Transcritical CO₂ Booster Rack



We know the art of achieving
a perfect temperature

BEIJER REF



The MWS by SCM Frigo is the most compact CO₂ transcritical booster system, featuring Bitzer semi-hermetic piston compressors equipped with frequency inverter or Bitzer CRIL technology. Ideal for medium-temperature (MT) and low-temperature (LT) applications, it is suitable for indoor installations or can be provided within a PNCC/PNC enclosure. Combining high efficiency, minimal footprint, and low noise levels, it represents a smart, versatile refrigeration solution.

MAIN ADVANTAGES



ECO-FRIENDLY
SOLUTION



ENHANCED CAPACITY



COMPACT DESIGN



MINIMAL
MAINTENANCE



ENERGY EFFICIENCY

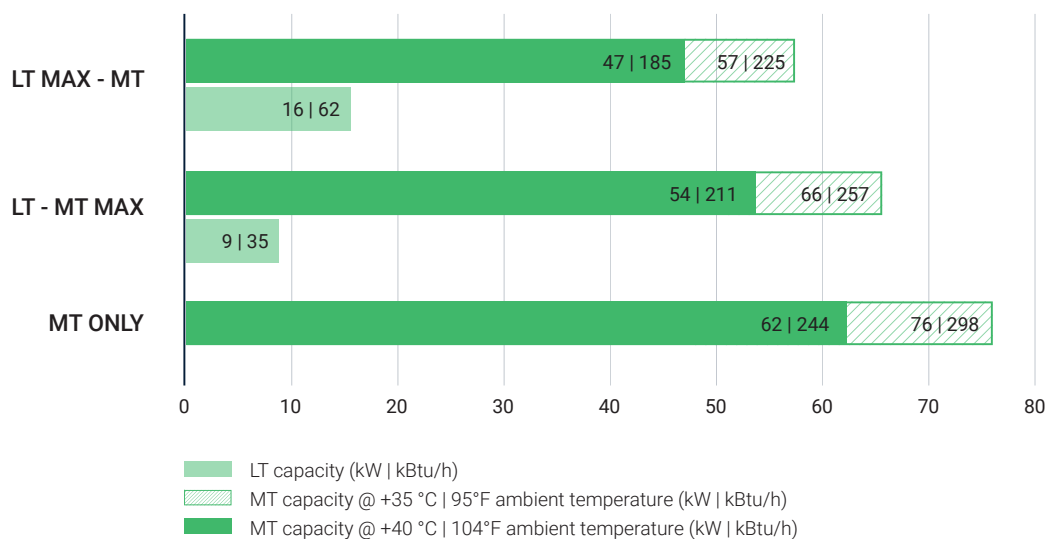


SCALABLE
AND VERSATILE



LOW NOISE

Cooling Capacity



Standard Accessories

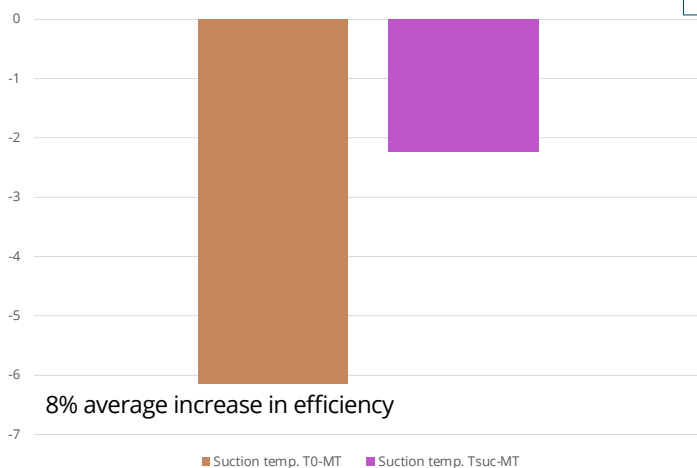
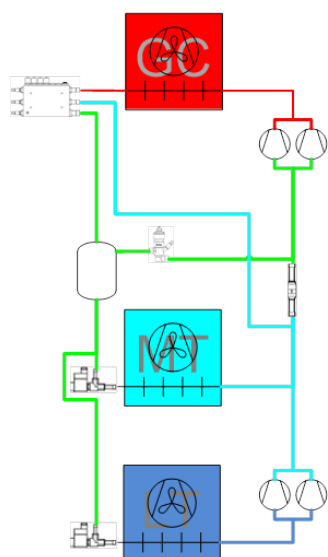
- Electronic oil level regulator Traxoil in each compressor
- Electronic controller
- Replaceable oil filter dryer
- Maintenance free oil separator with integrated oil reservoir
- Electronic minimum liquid level switch
- Liquid-flash internal heat exchanger
- Discharge manifold connected to safety valves
- Full factory testing and parameters setting
- PS 120/80/60/60 Bar | 1885/1160/1160/1160 PSI

Accessories on Request

- Controller Carel, Wurm, RDM, Danfoss
- Frequency inverter MT / LT
- PS 120/80/80/80 Bar | 1885/1160/1160/1160 PSI
- Heat recovery
- Energy metter
- Enclosure low noise / ultra low noise: 46 / 32 db(A) @ 10 meters (~33ft)
- PNC frame with integrated gas cooler
- LP ejector
- Backup controller
- V3V bypass gas cooler
- Suction filter strainer LT
- Suction filter dryer MT

High efficiency

LP Ejector



Source: CO2 Booster with LP Ejector (Punta Cana – Dominican Republic)

LSPM Motor



BITZER COMPRESSORS LSPM (line start permanent magnet)

The line-start permanent magnet (LSPM) motor technology take advantage of the motor efficiency and low heat input into the refrigerant, estimating 14% annual savings when compared with standard compressors.

DANFOSS MULTI EJECTOR LP (LOW PRESSURE)

In warm climates, the ejectors can lift all the gas from the evaporators into the receiver, witch is at a higher suction pressure than the evaporator and this is lowering the system energy consumption. In cold ambient conditions, the LP ejector serves the same functions as a coventional high-pressure valve controlling the system to perform at optimum COP.

Technical data Smart Booster (a)

Unit Model (a)	Qo MT ^(b)		Qo LT ^(c)		QGC		I _{MAX}	LRA	P _{MAX}	Liquid receiver	Weight		Sound pressure @10m ^{(d) (e)}	PNC	PNC Sound pressure @10m ^(f)	Dim.
	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	A	A	kW	dm3	kg	lbs	dB(A)		dB(A)	Fig.
MWS 2x043 MTDX	15.7	61.7	-	-	27	106	21.6	124.4	11.8	105	535	1,180	45	YES	33	A/B/C
MWS 065+043 MTDX	20.9	82.1	-	-	34	133.5	26.8	144.6	14.5	105	540	1,191	45	YES	34	A/B/C
MWS 2x065 MTDX	26	102.1	-	-	42	164.9	32.0	164.8	17.2	105	545	1,200	45	YES	33	A/B/C
MWS 096+065 MTDX	32.3	126.8	-	-	52	204.1	38.4	179.4	21.5	105	550	1,213	46	YES	34	A/B/F
MWS 2x096 MTDX	38.6	151.5	-	-	62	243.3	44.8	194.0	25.8	105	555	1,224	46	YES	35	A/B/F
MWS 096+2x065 MTDX	45.3	177.8	-	-	73	286.5	54.4	261.8	30.1	105	690	1,521	47	YES	35	A/B/F
MWS 2x096+065 MTDX	51.6	202.5	-	-	83	325.7	60.8	276.4	34.4	105	700	1,543	47	YES	38	A/B/F
MWS 3x096 MTDX	57.9	227.2	-	-	93	365	67.2	291.0	38.7	105	710	1,565	48	YES	42	A/B/F
MWS 120+2x096 MTDX	63.9	250.8	-	-	102	400.3	71.9	326.0	42.0	150	777	1,713	52	NO	-	D/E
MWS 3x120 MTDX	75.9	297.9	-	-	120	470.9	81.3	396.0	48.6	150	911	2,009	56	NO	-	D/E
MWS 2x043 MTDX + UMCE 007 HBT	11.9	46.7	3.3	13	27	106	24.5	150.4	12.9	105	650	1,433	46	YES	34	A/B/C
MWS 065+043 MTDX + UMCE 007 HBT	17	66.8	3.3	13	35	137.4	29.7	170.6	15.6	105	655	1,444	46	YES	34	A/B/C
MWS 2x065 MTDX + UMCE 007 HBT	22.2	87.2	3.3	13	43	168.8	34.9	190.8	18.3	105	660	1,455	46	YES	33	A/B/C
MWS 2x065 MTDX + UMCE 010 HBT	19.7	77.4	5.4	21.2	43	168.8	35.7	190.8	19.1	105	662	1,460	46	YES	33	A/B/C
MWS 096+065 MTDX + UMCE 010 HBT	25.9	101.7	5.4	21.2	53	208	42.1	205.4	23.4	105	667	1,471	47	YES	35	A/B/F
MWS 2x096 MTDX + UMCE 010 HBT	32.2	126.4	5.4	21.2	63	247.3	48.5	220.0	27.7	105	670	1,477	47	YES	35	A/B/F
MWS 2x096 MTDX + UMCE 020 HBT	30.5	119.7	6.9	27.1	63	247.3	50.1	231.0	28.3	105	675	1,488	47	YES	35	A/B/F
MWS 2x096 + 065 MTDX + UMCE 020 HBT	43.5	170.7	6.9	27.1	84	329.7	66.1	313.4	36.9	105	845	1,863	48	YES	38	A/B/F
MWS 3x096 MTDX + UMCE 020 HBT	49.8	195.5	6.9	27.1	94	368.9	72.5	328.0	41.2	105	850	1,874	49	YES	42	A/B/F
MWS 2x096+065 MTDX + UMCE 030 HBT	41.2	161.7	8.9	35	84	329.7	67.0	320.4	37.5	105	853	1,881	49	YES	38	A/B/F
MWS 3x096 MTDX + UMCE 030 HBT	47.5	186.4	8.9	35	94	368.9	73.4	335.0	41.8	105	857	1,890	49	YES	42	A/B/F
MWS 3x120 MTDX + UMCE 030 HBT	65.5	257.1	8.9	35	122	478.8	87.5	440.0	51.7	105	1043	2,300	56	NO	-	D/E
MWS 096+065 MTDX + UMCE 2x007 HBT	24.6	96.6	6.5	25.6	53	208	44.2	231.4	23.7	105	805	1,775	47	YES	35	A/B/F
MWS 2x096 MTDX + UMCE 2x007 HBT	30.9	121.3	6.5	25.6	63	247.3	50.6	246.0	28.0	105	810	1,786	48	YES	35	A/B/F
MWS 2x120 MTDX + UMCE 2x007 HBT	42.9	168.4	6.5	25.6	81	317.9	60.0	316.0	34.6	105	940	2,073	54	NO	-	A/B
MWS120+2x096 MTDX+U-MCE020+030HBT	45.4	178.2	15.8	62	104	408.1	83.4	407.0	47.6	150	1100	2,425	53	NO	-	D/E
MWS3x120MTDX+UMCE020+030HBT	57.4	225.3	15.8	62	122	478.8	92.8	477.0	54.2	150	1235	2,723	56	NO	-	D/E

(a) Compressor models:
 MT CP 043 - 4PTE-6K
 MT CP 065 - 4MTE-7K
 MT CP 096 - 4KTE-10K
 MT CP 120 - 4HTE-15K
 LT CP 007 - 2MME-07K
 LT CP 010 - 2KME-1K
 LT CP 020 - 2JME-2K
 LT CP 030 - 2HME-3K

(b) Calculated at -8°C / 18 °F SST, 35°C / 95 °F ambient temperature, and 37°C / 99 °F gas cooler outlet temperature.

(c) Calculated at -30°C / -22 °F SST and condensation @ -8°C / 18 °F SST

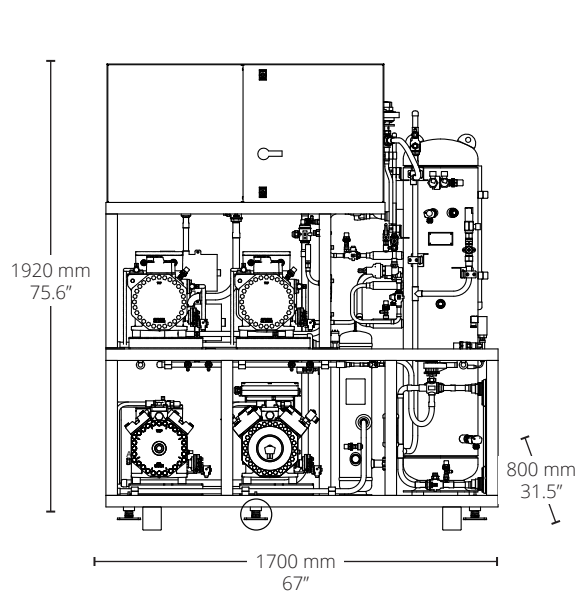
(d) Data valid for free-field conditions with a block-shaped reference area at a distance of 10 meters (~33ft).

(e) The low-noise version of the enclosure is certified to ensure a sound level between 31-33 dB(A), based on free field area with semi-spherical sound emission in 10m (~33ft) distance.

(f) The PNC enclosure is low noise certified, based on free field area with semi-spherical sound emission in 10m (~33ft) distance.

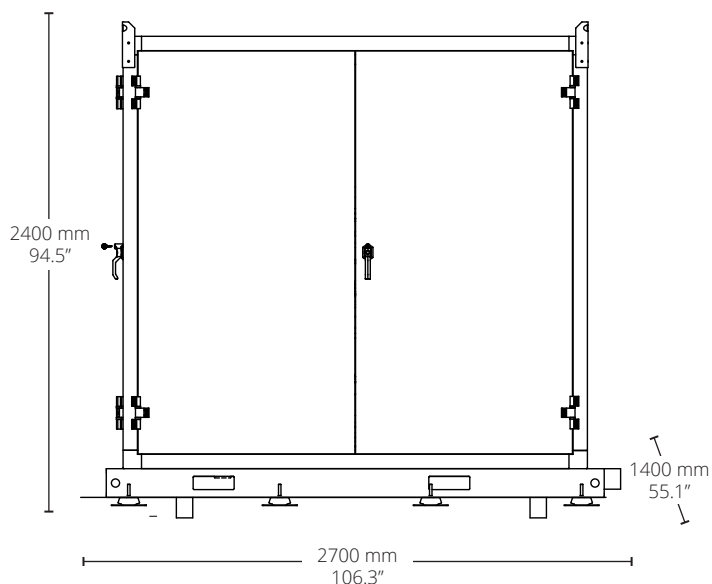
Dimensional Data

(Fig. A) Indoor Unit

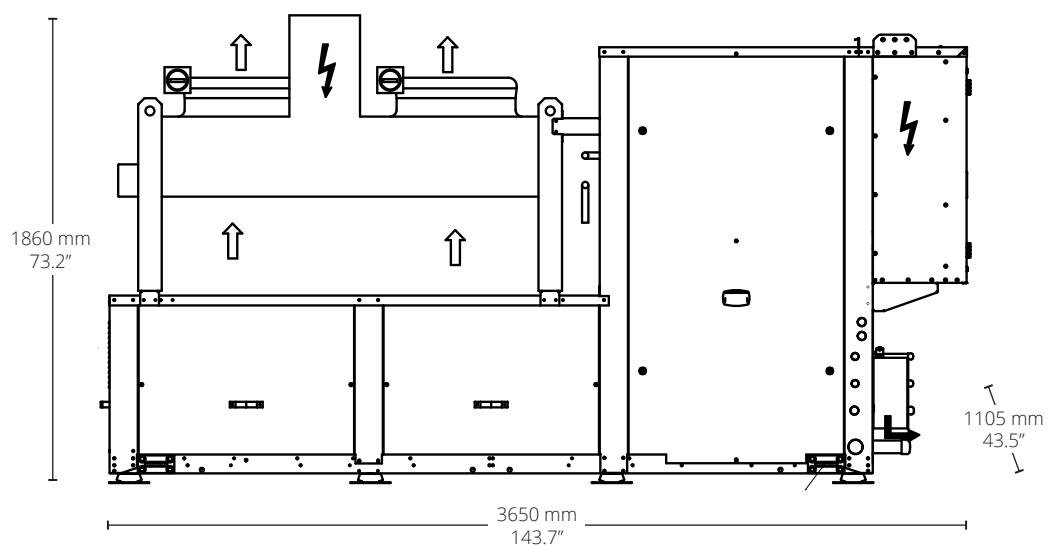


(Fig. B) Outdoor Unit

Enclosed available in standard or low-noise versions

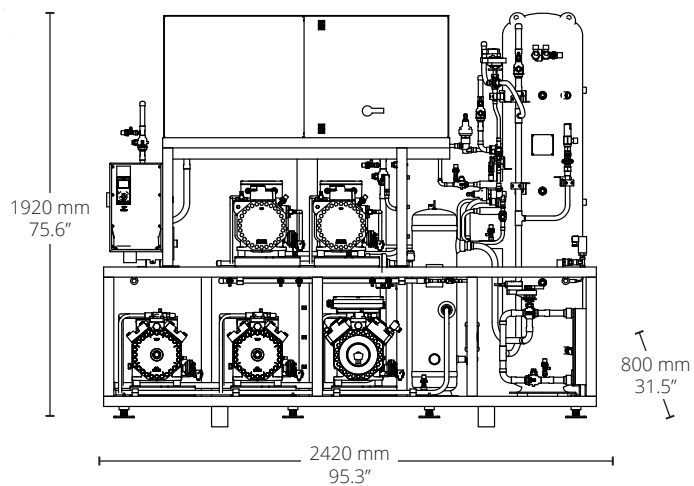


(Fig. C) PNC Version with Integrated Gas Cooler



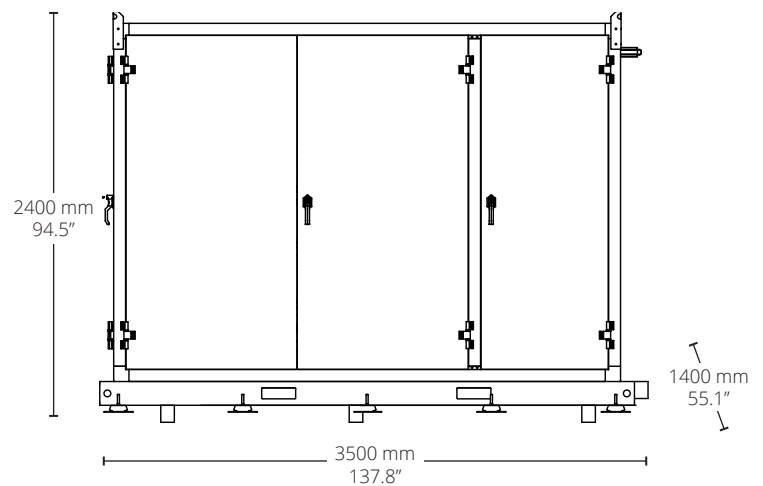
Dimensional Data

(Fig. D) Indoor Unit

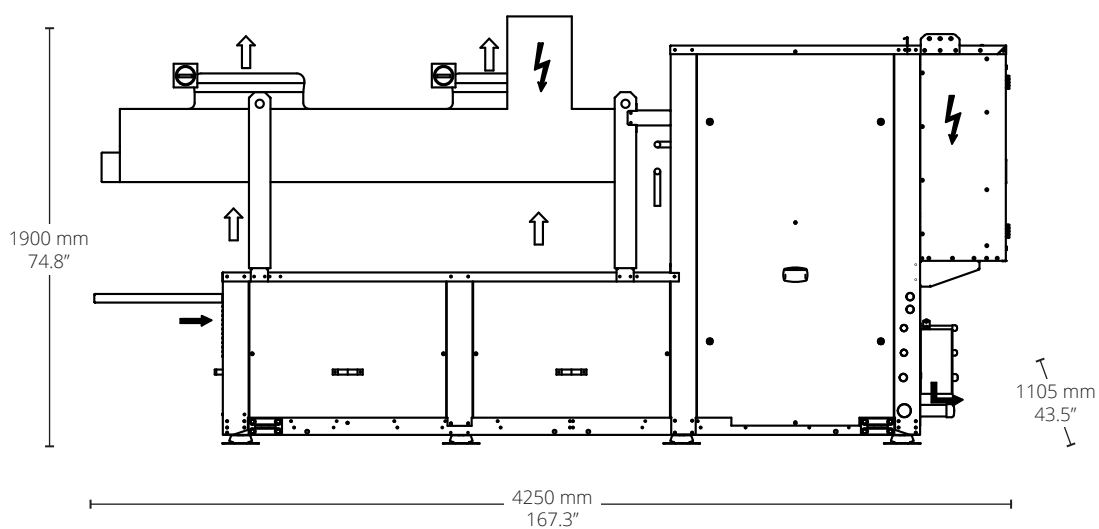


(Fig. E) Outdoor Unit

Enclosed available in standard or low-noise versions



(Fig. F) PNC Version with Integrated Gas Cooler



CO₂ / R744

NATURAL REFRIGERATION CHOICE



Non-flammable

The electrical panel can be located in the same room as the refrigeration equipment. This reduces space requirements and lowers installation costs.

Non-toxic

With no charge limitations or safety concerns, CO₂ can be used across a wide range of applications.

Built-in Resilience

CO₂ packs typically include multiple compressors, ensuring continued operation even if one compressor fails. This built-in redundancy enhances reliability and reduces the risk of downtime.

Standard refrigerant option

CO₂ is now a standard refrigerant in commercial installations, making the transition to industrial applications seamless. A wider selection of companies and qualified engineers is available for installation and servicing.



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