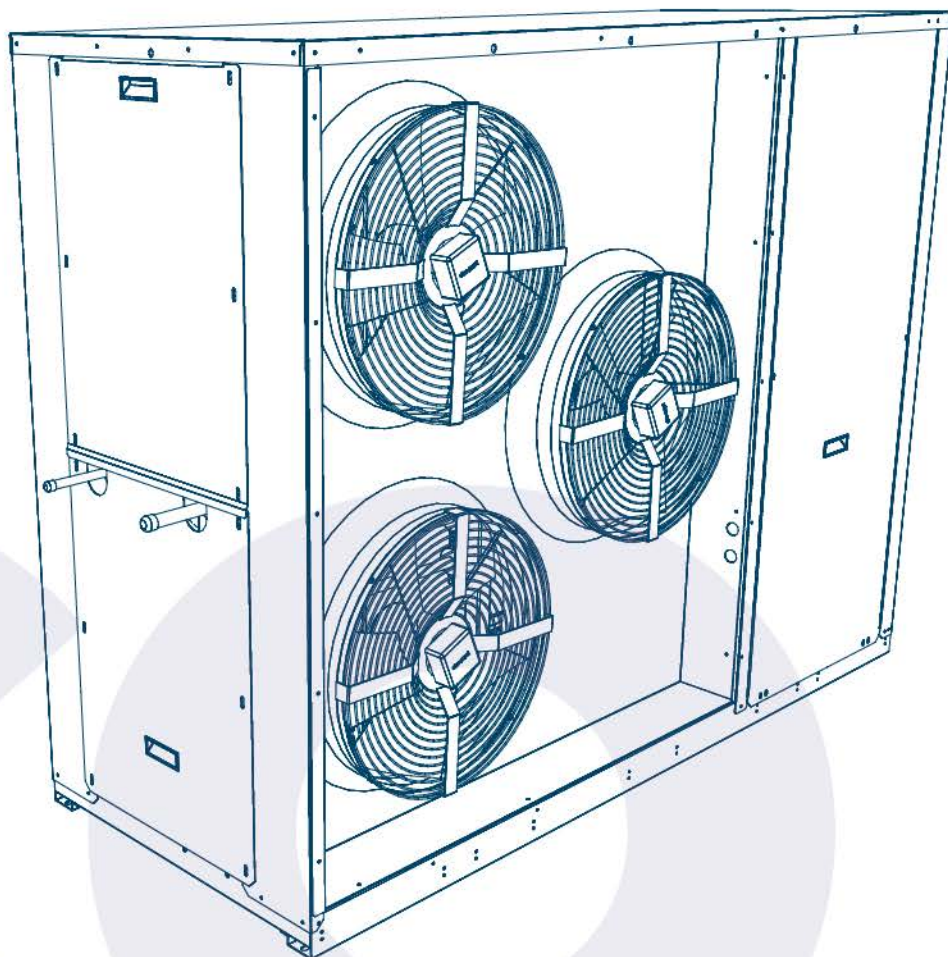




# *Sustainable* **Cold Solutions**

*CO<sub>2</sub> condensing unit*



According to SCM Natural Choice, we have developed a **range of CO<sub>2</sub> transcritical condensing units** with a very low carbon footprint and lower energy consumption than the traditional HFC solutions.

Design is compact and units are easy to install and maintain. Units are equipped with gas cooler and electrical panel, tested and factory programmed for an easy start-up.

## STANDARD CONFIGURATION

- ◇ *Semi Hermetic reciprocating compressor*
- ◇ *Frequency controlled compressor (MT line)*
- ◇ *EC fans*
- ◇ *Liquid Receiver 15L*
- ◇ *K65 connections*
- ◇ *Design pressure:*
  - 120 bar (high pressure side)*
  - 80 bar (liquid line)*
  - 80 bar (suction)*

## OPTION ON REQUEST

- ◇ *Frequency controlled compressor on LT line*



### Unità a CO<sub>2</sub> per applicativi di Media e Bassa Temperatura

Sistemi transcritici ad espansione diretta  
Modello UMT MTDX. *Capacità frigorifera da 3 a 37 kW.*  
Modello UMT BTDX. *Capacità frigorifera da 1,2 a 15 kW.*

### CO<sub>2</sub>-Kälteanlage für die Anwendung im Mittleren und Tief-Verdampfungstemperaturbereich

Transkritisches System DX  
Modell UMT MTDX. *Kälteleistung von 3 kW bis 37 kW.*  
Modell UMT BTDX. *Kälteleistung von 1,2 kW bis 15 kW.*

### CO<sub>2</sub> Systems for medium and low temperature applications

Transcritical condensing units DX  
Model UMT MTDX. *Cooling Capacity from 3 up to 37 kW.*  
Model UMT BTDX. *Cooling Capacity from 1,2 up to 15 kW.*

### Groupes de condensation au CO<sub>2</sub> pour applications pour moyenne et basse température

Groupes de condensation transcritiques à détente directe  
Modèle UMT MTDX. *Puissance froid de 3 à 37 kW.*  
Modèle UMT BTDX. *Puissance froid de 1,2 à 15 kW.*



# MEDIUM TEMPERATURE

UMT 036 MTDX*	Dorin CD 360H	T amb [°C]	Evaporation Temperature [°C]													
		-15	-10		-5		0		5							
		Cooling Capacity [kW]		COP	Cooling Capacity [kW]		COP	Cooling Capacity [kW]		COP	Cooling Capacity [kW]		COP			
		min	max		min	max		min	max		min	max		min	max	
40		2,37	3,55	1,03	2,97	4,45	1,21	3,64	5,46	1,42	4,37	6,55	1,65	5,15	7,73	1,91
38		2,54	3,82	1,31	3,18	4,78	1,31	3,90	5,86	1,55	4,67	7,01	1,80	5,51	8,27	2,10
32		2,99	4,49	1,42	3,71	5,57	1,70	4,52	6,78	2,03	5,38	8,08	2,40	6,33	9,49	2,85
20		4,15	6,23	2,31	5,08	7,62	2,81	5,91	8,87	3,32	7,27	10,91	4,25	8,66	12,74	5,31
MEPS		2,57 (according to Ecodesign Directive EN 2009/125/EC)														
MRA/Pmax		13,8A / 4,8 kW														
UMT 075 MTDX*	Dorin CD 750H	T amb [°C]	Evaporation Temperature [°C]													
		-15	-10		-5		0		5							
		Cooling Capacity [kW]		COP	Cooling Capacity [kW]		COP	Cooling Capacity [kW]		COP	Cooling Capacity [kW]		COP			
		min	max		min	max		min	max		min	max		min	max	
40		5,11	7,67	1,12	6,29	9,43	1,31	7,54	11,30	1,52	8,78	13,18	1,74	10,39	15,59	2,02
38		5,40	8,10	1,21	6,64	9,96	1,42	7,94	11,92	1,65	9,37	14,05	1,90	10,94	16,40	2,23
32		6,20	9,30	1,54	7,57	11,35	1,84	8,96	13,44	2,15	10,79	16,19	2,51	12,31	18,47	3,04
20		8,28	12,42	2,47	9,87	14,81	2,93	13,66	20,48	3,57	13,66	20,48	4,27	15,82	23,74	5,30
MEPS		2,65 (according to Ecodesign Directive EN 2009/125/EC)														
MRA/Pmax		24,4 A / 8,7 kW														
UMT 120 MTDX	Dorin CD4 90-6.4H	T amb [°C]	Evaporation Temperature [°C]													
		-15	-10		-5		0		5							
		Cooling Capacity [kW]		COP	Cooling Capacity [kW]		COP	Cooling Capacity [kW]		COP	Cooling Capacity [kW]		COP			
		min	max		min	max		min	max		min	max		min	max	
40		5,10	10,20	1,09	6,28	12,55	1,28	11,31	15,13	1,48	8,96	17,92	1,72	10,49	20,99	1,98
38		5,45	10,90	1,18	6,70	13,39	1,39	11,73	15,96	1,61	9,45	18,90	1,87	11,05	22,10	2,16
32		6,22	12,44	1,50	7,60	15,20	1,79	13,54	18,22	2,09	10,75	21,50	2,48	12,56	25,12	2,90
20		8,25	16,50	2,36	9,97	19,94	2,86	17,42	23,46	3,39	13,79	27,58	4,15	15,78	31,56	4,98
MEPS		2,71 (according to Ecodesign Directive EN 2009/125/EC)														
MRA/Pmax		27,4 A / 13,2 kW														
UMT 150 MTDX	Dorin CD 1400H	T amb [°C]	Evaporation Temperature [°C]													
		-15	-10		-5		0		5							
		Cooling Capacity [kW]		COP	Cooling Capacity [kW]		COP	Cooling Capacity [kW]		COP	Cooling Capacity [kW]		COP			
		min	max		min	max		min	max		min	max		min	max	
40		7,41	14,82	1,07	9,11	18,23	1,26	11,31	22,62	1,47	12,68	25,37	1,64	14,81	29,62	1,89
38		7,91	15,82	1,17	9,72	19,44	1,37	11,73	23,46	1,61	13,37	26,74	1,78	15,60	31,20	2,06
32		9,22	18,43	1,49	11,26	22,52	1,76	13,54	27,07	2,08	15,55	31,09	2,34	18,10	36,20	2,75
20		12,43	24,85	2,48	14,99	29,99	3,01	17,42	34,84	3,49	13,79	27,58	4,15	23,11	46,21	4,97
MEPS		3,67 (according to Ecodesign Directive EN 2009/125/EC)														
MRA/Pmax		37,2 A / 14,9 kW														
UMT 190 MTDX	Dorin CD 2000H	T amb [°C]	Evaporation Temperature [°C]													
		-15	-10		-5		0		5							
		Cooling Capacity [kW]		COP	Cooling Capacity [kW]		COP	Cooling Capacity [kW]**		COP	Cooling Capacity [kW]**		COP			
		min	max		min	max		min	max		min	max		min	max	
40		9,29	18,59	1,05	11,43	22,86	1,25	13,80	27,60	1,47	16,08	26,80	1,67	18,53	30,88	1,90
38		9,92	19,84	1,15	12,19	24,37	1,36	14,70	29,40	1,60	17,14	28,56	1,83	19,51	32,52	2,08
32		11,31	22,62	1,47	13,97	27,94	1,76	16,77	33,54	2,09	19,40	32,34	2,38	22,02	36,70	2,64
20		15,17	30,35	2,37	18,08	36,17	2,82	21,24	42,48	3,34	21,61	36,01	3,10	25,06	41,77	3,75
MEPS		2,69 (according to Ecodesign Directive EN 2009/125/EC)														
MRA/Pmax		41,2 A / 20,9 kW														

Inverter modulation from 30 to 60 Hz except \* from 40 to 60 Hz / cooling capacity min @30 Hz - max @ 60 Hz except \*\* @ 50 Hz

V / Ph / Hz 400/3/50 | \*\*Sound Pressure: based on freefield area with semi-spherical sound emission in 10 m distance

## N°of fans / Dimensions & Weight / Noise

	2x500		2x500		2x500		3x500
<b>CD360H</b>	mm1340x760x1485 Weight 460 Kg **Noise 43 dB(A)	<b>CD750H</b>	mm1340x760x1485 Weight 560 Kg **Noise 44 dB(A)	<b>CD4 90-6.4H</b>	mm1340x760x1485 Weight 570 Kg **Noise 45 dB(A)	<b>CD1400H</b>	mm1895x760x1485 Weight 650 Kg **Noise 45 dB(A)
<b>CD2000H</b>	3x500 mm1895x760x1485 Weight 655 Kg **Noise 45 dB(A)						

# MEDIUM TEMPERATURE

UMT 036 MTDX*	Bitzer 2MTE-5K	T amb [°C]		Evaporation Temperature [°C]		-15		-10		-5		0		5						
		Cooling Capacity [kW]		COP		Cooling Capacity [kW]		COP		Cooling Capacity [kW]		COP		Cooling Capacity [kW]		COP				
		min	max			min	max			min	max			min	max					
40		3,40	5,10	1,09		4,19	6,29	1,28		5,06	7,58	1,49		6,02	9,04	1,69		7,17	10,75	1,99
38		3,56	5,34	1,18		4,40	6,60	1,39		5,30	7,96	1,61		6,38	9,58	1,89		7,52	11,28	2,19
32		4,14	6,22	1,54		5,16	7,74	1,81		6,19	9,29	2,13		7,36	11,04	2,48		8,73	13,09	2,99
20		5,78	8,68	2,51		7,06	10,60	3,05		8,27	12,41	3,55		9,66	14,48	4,16		11,44	17,16	5,24
MEPS		2,65 (according to Ecodesign Directive EN 2009/125/EC)																		
MRA/Pmax		15,9 A / 7,5 kW																		
UMT 075 MTDX*	Bitzer 2KTE-7K	T amb [°C]		Evaporation Temperature [°C]		-15		-10		-5		0		5						
		Cooling Capacity [kW]		COP		Cooling Capacity [kW]		COP		Cooling Capacity [kW]		COP		Cooling Capacity [kW]		COP				
		min	max			min	max			min	max			min	max					
40		4,98	7,48	1,09		6,10	9,16	1,28		7,39	11,09	1,47		8,83	13,25	1,73		10,50	15,76	1,99
38		5,30	7,94	1,17		6,38	9,58	1,39		7,99	11,99	1,59		9,23	13,85	1,89		11,58	17,36	2,16
32		6,13	9,19	1,53		7,41	11,11	1,81		9,02	13,52	2,13		10,68	16,02	2,51		8,73	13,09	3,01
20		8,38	12,56	2,51		10,27	15,41	3,05		12,03	18,05	3,55		9,66	14,48	4,23		16,61	24,91	5,24
MEPS		2,65 (according to Ecodesign Directive EN 2009/125/EC)																		
MRA/Pmax		20,5 A / 10,4 kW																		
UMT 120 MTDX	Bitzer 4MTE-10K	T amb [°C]		Evaporation Temperature [°C]		-15		-10		-5		0		5						
		Cooling Capacity [kW]		COP		Cooling Capacity [kW]		COP		Cooling Capacity [kW]		COP		Cooling Capacity [kW]		COP				
		min	max			min	max			min	max			min	max					
40		4,91	9,82	1,06		6,16	12,32	1,23		7,38	14,76	1,43		8,93	17,86	1,65		10,42	20,84	1,95
38		5,17	10,34	1,14		6,53	13,07	1,33		7,78	15,56	1,56		9,67	19,34	1,80		11,00	22,01	2,15
32		6,14	12,28	1,46		7,58	15,17	1,75		9,04	18,07	2,10		10,87	21,73	2,48		12,70	25,40	2,99
20		8,38	16,76	2,35		10,24	20,48	2,89		12,21	24,42	3,52		14,32	28,64	4,20		16,69	33,37	5,23
MEPS		2,71 (according to Ecodesign Directive EN 2009/125/EC)																		
MRA/Pmax		26,3 A / 13,8 kW																		
UMT 150 MTDX	Bitzer 4JTE-15K	T amb [°C]		Evaporation Temperature [°C]		-15		-10		-5		0		5						
		Cooling Capacity [kW]		COP		Cooling Capacity [kW]		COP		Cooling Capacity [kW]		COP		Cooling Capacity [kW]		COP				
		min	max			min	max			min	max			min	max					
40		7,79	15,59	1,15		9,43	18,85	1,33		11,47	22,93	1,52		13,46	26,93	1,77		15,97	31,94	2,03
38		8,38	16,76	1,25		9,94	19,87	1,45		12,34	24,68	1,65		14,11	28,22	1,94		17,46	34,92	2,20
32		9,52	19,03	1,62		11,56	23,11	1,80		13,74	27,48	2,20		16,09	32,17	2,61		19,05	38,10	3,04
20		12,68	25,36	2,53		15,06	30,12	3,07		18,10	36,19	3,66		21,32	42,64	4,42		24,40	48,80	5,22
MEPS		2,67 (according to Ecodesign Directive EN 2009/125/EC)																		
MRA/Pmax		33,4 A / 18,6 kW																		
UMT 190 MTDX	Bitzer 4HTE-20K	T amb [°C]		Evaporation Temperature [°C]		-15		-10		-5		0		5						
		Cooling Capacity [kW]		COP		Cooling Capacity [kW]		COP		Cooling Capacity [kW]		COP		Cooling Capacity [kW]**		COP				
		min	max			min	max			min	max			min	max					
40		9,71	19,43	1,12		11,68	23,36	1,30		14,23	28,46	1,50		16,72	27,86	1,72		19,17	31,95	2,01
38		10,35	20,70	1,21		12,30	24,60	1,41		15,34	30,67	1,62		17,44	29,06	1,89		21,25	35,42	2,23
32		11,92	23,84	1,58		14,20	28,39	1,85		16,94	33,89	2,17		19,96	33,26	2,54		23,76	39,60	2,97
20		15,67	31,34	2,46		18,68	37,37	2,91		22,06	44,12	3,84		22,95	38,25	3,42		26,84	44,74	4,22
MEPS		2,69 (according to Ecodesign Directive EN 2009/125/EC)																		
MRA/Pmax		42,4 A / 24 kW																		

Inverter modulation from 30 to 60 Hz except \* from 40 to 60 Hz / cooling capacity min @ 30 Hz - max @ 60 Hz except \*\* @ 50 Hz

V / Ph / Hz 400/3/50 | \*\*Sound Pressure: based on freefield area with semi-spherical sound emission in 10 m distance

## N° of fans / Dimensions & Weight / Noise

	2x500		2x500		2x500		3x500
<b>2MTE-5K</b>	mm1340x760x1485 Weight 460 Kg **Noise 43 dB(A)	<b>2KTE-7K</b>	mm1340x760x1485 Weight 470 Kg **Noise 44 dB(A)	<b>4MTE-10K</b>	mm1340x760x1485 Weight 570 Kg **Noise 44 dB(A)	<b>4JTE-15K</b>	mm1895x760x1485 Weight 645 Kg **Noise 45 dB(A)
<b>4HTE-20K</b>	3x500 mm1895x760x1485 Weight 655 Kg **Noise 45 dB(A)						



# LOW TEMPERATURE

UMT 030 BTDX	Dorlin CD2S 300	T amb [°C]		Evaporation Temperature [°C]								
		-40		-35				-30		-25		
		Cooling Capacity [kW]		Cooling Capacity [kW]		Cooling Capacity [kW]		Cooling Capacity [kW]		Cooling Capacity [kW]		
		min	max	min	max	min	max	min	max	min	max	
40	-	-	-	-	-	-	1,38	2,11	0,97	1,58	2,38	1,05
38	-	-	-	1,22	1,84	0,94	1,42	2,14	1,02	1,64	2,46	1,11
32	1,08	1,62	0,94	1,26	1,90	1,04	1,53	2,29	1,12	1,73	2,59	1,31
20	1,17	1,75	1,25	1,37	2,05	1,39	1,66	2,48	1,60	1,90	2,86	1,77
MEPS		0,96 (according to Ecodesign Directive EN 2009/125/EC)										
MRA/Pmax		10,4 A / 4,2 kW										
UMT035 BTDX	Dorlin CD2S 350	T amb [°C]		Evaporation Temperature [°C]								
		-40		-35				-30		-25		
		Cooling Capacity [kW]		Cooling Capacity [kW]		Cooling Capacity [kW]		Cooling Capacity [kW]		Cooling Capacity [kW]		
		min	max	min	max	min	max	min	max	min	max	
40	-	-	-	-	-	-	1,62	2,42	0,99	1,88	2,82	1,08
38	-	-	-	1,46	2,18	0,97	1,67	2,51	1,05	1,94	2,92	1,15
32	1,30	1,96	1,03	1,54	2,30	1,14	1,78	2,68	1,12	2,06	3,10	1,36
20	1,44	2,16	1,35	1,69	2,53	1,49	1,98	2,98	1,66	2,31	3,47	1,84
MEPS		1,01 (according to Ecodesign Directive EN 2009/125/EC)										
MRA/Pmax		11,7 A / 4,7 kW										
UMT 036 BTDX	Dorlin CD2S 360	T amb [°C]		Evaporation Temperature [°C]								
		-40		-35				-30		-25		
		Cooling Capacity [kW]		Cooling Capacity [kW]		Cooling Capacity [kW]		Cooling Capacity [kW]		Cooling Capacity [kW]		
		min	max	min	max	min	max	min	max	min	max	
40	-	-	-	-	-	-	2,09	3,13	0,99	2,44	3,66	1,09
38	-	-	-	1,86	2,80	0,97	2,16	3,24	1,05	2,50	3,76	1,14
32	1,67	2,51	1,03	1,97	2,95	1,13	2,29	3,43	1,23	2,68	4,02	1,36
20	1,86	2,78	1,34	2,19	3,29	1,50	2,55	3,83	1,64	2,97	4,45	1,81
MEPS		1,60 (according to Ecodesign Directive EN 2009/125/EC)										
MRA/Pmax		11,9 A / 5 kW										
UMT 120 BTDX	Dorlin CD2S 1200	T amb [°C]		Evaporation Temperature [°C]								
		-40		-35				-30		-25		
		Cooling Capacity [kW]		Cooling Capacity [kW]		Cooling Capacity [kW]		Cooling Capacity [kW]		Cooling Capacity [kW]		
		min	max	min	max	min	max	min	max	min	max	
40	-	-	-	-	-	-	8,05	12,07	1,01	9,24	13,86	1,09
38	-	-	-	7,07	10,61	0,98	8,28	12,42	1,07	9,51	14,27	1,15
32	6,16	9,24	1,01	7,35	11,03	1,13	8,58	12,86	1,23	9,96	14,94	1,34
20	6,56	9,84	1,29	7,78	11,68	1,45	9,14	13,72	1,59	10,57	15,85	1,73
MEPS		1,70 (according to Ecodesign Directive EN 2009/125/EC)										
MRA/Pmax		32,4 A / 13,2 kW										

Inverter modulation from 40 to 60 Hz / cooling capacity min @ 40Hz - max @ 60 Hz

V / Ph / Hz 400/3/50 | \*\*Sound Pressure: based on freefield area with semi-spherical sound emission in 10 m distance

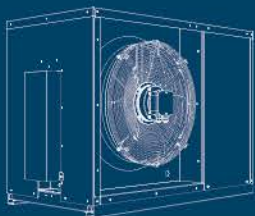
## N°of fans / Dimensions & Weight / Noise

	2x500		2x500		2x500		2x500
<b>CD2S300</b>	mm1340x760x1485 Weight 460 Kg **Noise 48 dB(A)	<b>CD2S350</b>	mm1340x760x1485 Weight 465 Kg **Noise 48 dB(A)	<b>CD2S360</b>	mm1340x760x1485 Weight 470 Kg **Noise 48 dB(A)	<b>CD2S1200</b>	mm1340x760x1485 Weight 560 Kg **Noise 50 dB(A)

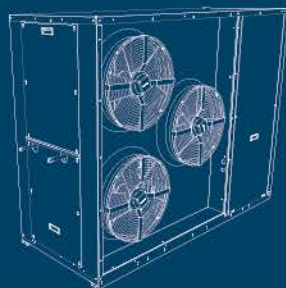
# CUBO<sub>2</sub> PLUS PRELIMINARY DATA

# CO<sub>2</sub> RANGE

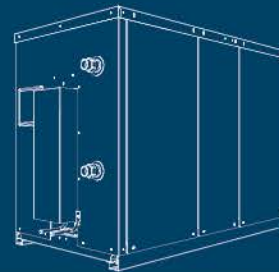
*A solution for all applications*



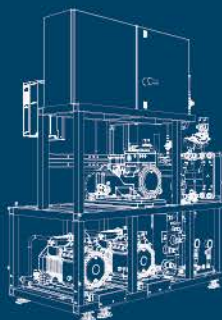
**CUBO<sub>2</sub>**  
SMART



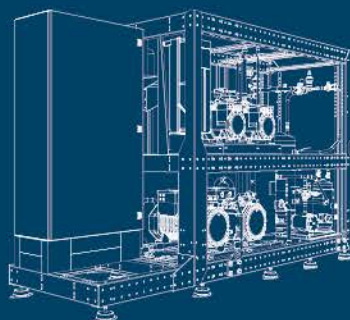
**CUBO<sub>2</sub>**  
PLUS



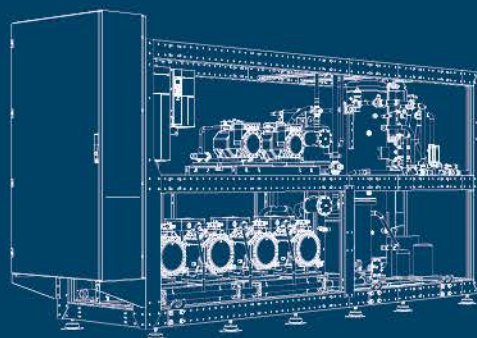
**CUBO<sub>2</sub>**  
AQUA



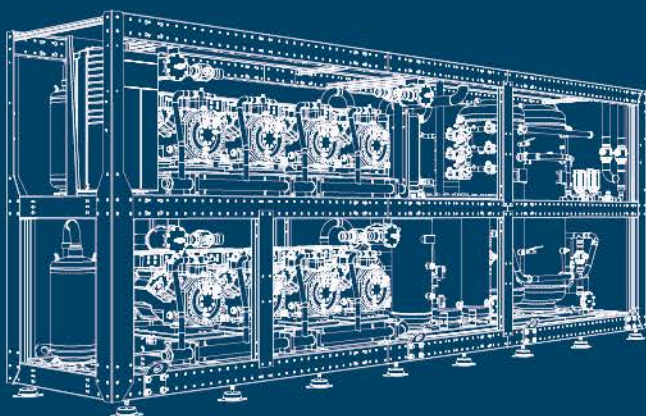
**SMART**  
**BOOSTER**



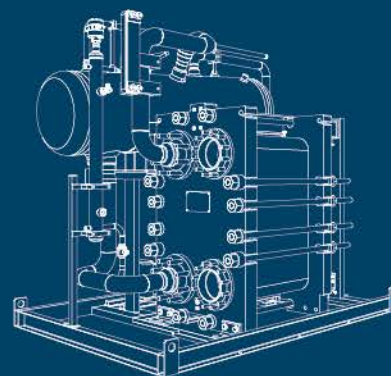
**LEAN**  
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