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## SPLIT SYSTEM AIR CONDITIONERS

**13 SEER – R-410A – 1 PHASE  
1.5 THRU 5 NOMINAL TONS  
MODELS: J4AC3018 - 60A1000AA**



## CONDENSERS

### DESCRIPTION

The Oxbox line of heating and cooling products offers you flexible and affordable options for your HVAC equipment needs. Oxbox air conditioners have been tested to perform even in the hottest climates, with equipment that's quiet, dependable, and affordable.

### WARRANTY

Our innovative 1-5-10 no-registration warranty gives you maximum peace of mind. Plus, every piece of equipment is warranted to the home, not the homeowner—providing an extra measure of coverage when it comes time to sell your home.

1 Year: Unit Replacement

Compressors or coils fail, complete unit replacement.

5 Years: Standard Parts Warranty

10 Years: Compressor Replacement

### FEATURES

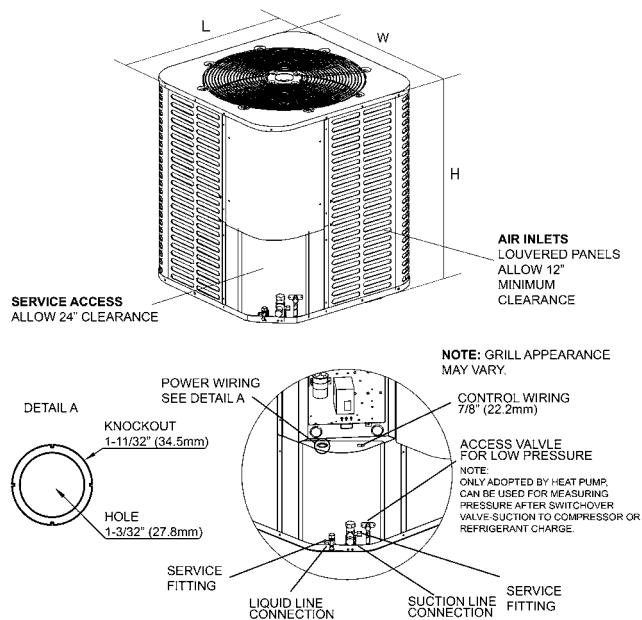
- **General** - The JCA430 is fully charged from the factory. This unit is designed to operate at outdoor ambient temperatures as high as 115°F. Cooling capacities are matched with air handlers and furnace coils that are AHRI certified. The unit is certified ETL. Exterior is designed for outdoor application.
- **Small Footprint** - Minimum footprint for easier handling, transportation, and installation.
- **Casing** - Unit casing is constructed of heavy gauge, Galvanized steel and painted with a weather resistant powder coat on all grilles, panels, prepaint on all other panels. Salt spray rated to 500 hours.
- **Refrigerant Controls** - Refrigerant system controls include condenser fan and compressor contactor.
- **Scroll Compressor** - Features include low vibration and noise.
- **Condenser Coils** - The outdoor coil provides low airflow resistance and efficient heat flow transfer.
- **Rugged Coil Protection** - Coils are protected from mechanical damage by a proven stamped steel coil guard design.
- **Environmentally Friendly** - CFC-free R-410A refrigerant delivers environmentally friendly performance with zero ozone depletion.
- **Top Discharge** - Warm air is blown up, away from the structure and any landscaping and allows compact location on multi-unit applications.
- **Low Operating Sound Levels** - The sturdy cabinet and top design provides sound performance of 76 dBA or lower.
- **Agency Listed** - Safety certified by ETL to UL 1995. Performance certified to AHRI Standard 210/240 in accordance with the Unitary Small Equipment certification program.



## CONDENSERS

### PHYSICAL AND ELECTRICAL DATA

MODEL		J4AC18A 1000AA	J4AC24A 1000AA	J4AC30A 1000AA	J4AC36A 1000AA	J4AC42A 1000AA	J4AC48A 1000AA	J4AC60B 1000AA
Unit Supply Voltage		208-230V, 1 $\phi$ , 60Hz						
Normal Voltage Range		187 to 252						
Minimum Circuit Ampacity		11.9	14.4	15.2	19.9	21.6	32.0	28.6
Max. Overcurrent Device Amps		20	25	25	35	35	50	50
Min. Overcurrent Device Amps		20	25	25	35	35	50	35
Compressor Type		Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Compressor Amps	Rated Load	9.0	10.9	11.6	15.3	15.9	24.2	22.3
	Locked Rotor	39.0	53.0	59.0	70.0	112.3	100	127.9
Crankcase Heater		No	No	No	No	No	No	No
Factory External Discharge Muffler		No	No	No	No	No	No	No
HS Kit Required with TXV		Yes	Yes	Yes	Yes	Yes	No	No
Fan Diameter Inches		17-3/4	17-3/4	23-5/8	18-7/8	23	23	23-1/16
Fan Motor	Rated HP	1/12	1/12	1/8	1/8	1/3	1/3	1/3
	Rated Load Amps	0.60	0.70	0.70	0.70	1.70	1.70	1.70
	Nominal RPM	1075	1075	1075	1075	1075	1075	1090
	Nominal CFM	1600	1800	2700	2156	3700	4000	4250
Coil	Face Area Sq. Ft.	8.89	10.05	12.84	9.74	17	17.42	17.22
	Rows Deep	2	2	2	2	2	2	2
	Fins / Inches	19	17	19	21	21	19	20
Liquid Line Set OD (Field Installed)		3/8	3/8	3/8	3/8	3/8	3/8	3/8
Vapor Line Set OD (Field Installed)		3/4	3/4	3/4	3/4	3/4	7/8	7/8
Unit Charge (Lbs. - Oz.)		4 - 7	4 - 13	4 - 7	4 - 5	7 - 16	8 - 1	9 - 14
Charge Per Foot, Oz.		0.62	0.62	0.62	0.62	0.67	0.67	0.75
Operating Weight Lbs.		123	126	143	132	190	200	196



Unit Model	Dimensions (Inches)			Refrigerant Connection Service Valve Size	
	L	W	H	Liquid	Vapor
J4AC3018A1000A	22	22	25	3/8	3/4
J4AC3024A1000A	22	22	25		
J4AC3030A1000A	29	29	25		
J4AC3036A1000A	24	24	25		
J4AC3042A1000A	28	28	33		
J4AC3048A1000A	28	28	30	7/8	7/8
J4AC3060A1000A	28	28	34h		



**RAC SERIES  
SPLIT-SYSTEM AIR  
CONDITIONERS  
13 SEER – R-410A  
1.5 THRU 5 NOMINAL TONS**

**MODELS:  
RAC 18 THRU 60**



**DESCRIPTION**

The 13 SEER Series unit is the outdoor part of a versatile climate system. It is designed with a matching indoor coil component from Johnson Controls Unitary Products. Available for typical applications this climate system is supported with accessories and documents to serve specific functions.

**WARRANTY**

Standard 5-Years limited parts warranty.

Standard 5-Years limited compressor warranty.

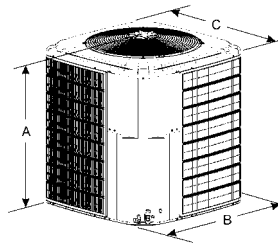
Extended 10-Years limited parts and compressor warranty when product is registered online within 90 days of purchase for replacement or closing for new home construction.

**FEATURES**

- Small Footprint - Extremely lightweight with a compact footprint, it is a perfect fit for any application.
- Quality Condenser Coils - The coil is constructed of aluminum microchannel tubing and enhanced aluminum fins for reduced size and increased efficiency.
- Coil Protection - Coils are protected from damage by a slotted, stamped steel coil guard.
- Optional Factory E-Coat - Available ElectroFin® or factory approved equivalent (contact the factory for details) coated coil on select models.
- Protected Compressor - Compressors are protected internally by a high pressure relief valve and a temperature sensor, and

externally by the system high pressure switch. A factory installed liquid line filter-drier further protects the compressor against moisture and debris.

- Environmentally Friendly Refrigerant - The R-410A refrigerant delivers environmentally friendly performance with zero ozone depletion.
- Durable Finish - An automotive quality finish provides the ultimate protection from harmful UV rays and rust-creep, ensuring a long-lasting, high quality appearance. A powder paint top coat is applied over a baked on primer using a galvanized, zinc coated steel base material.
- Lower Installed Cost - Installation time and costs are reduced by easy power and control wiring connections. The unit is factory charged for a 15-foot lineset. The small base dimension means less space is required on the ground or roof.
- Top Discharge - Warm air from the top mounted fan is blown up, away from the structure and any landscaping. This allows compact location on multi-unit applications.
- Low Operating Sound Levels - The upward air flow carries the normal operating noise away from the living area. The rigid top panel effectively isolates any motor sound. Isolator mounted compressor and the condenser coil muffle the normal fan motor and compressor operating sounds.
- Low Maintenance - Long life, permanently lubricated motorbearings need no annual servicing.
- Easy Service Access - Fully exposed refrigerant connections and a single panel covering the electrical controls make for easy servicing of the unit.
- Secured Service Valves - Secured, re-usable service valves are provided on both the liquid and vapor sweat connections for ease of evacuating and charging.



Unit Model	Dimensions (Inches)			Refrigerant Connection Service Valve Size	
	A	B	C	Liquid	Vapor
18	28-1/4	24	24	3/8"	3/4"
24	28-1/4	24	24		
30	28-1/4	24	24		
36	28-1/4	29-1/2	29-1/2		
42	30-1/4	29-1/2	29-1/2		7/8"
48	30-1/4	29-1/2	29-1/2		
60	32-1/4	34	34		

**PHYSICAL AND ELECTRICAL DATA**

MODEL		RAC13J18 4S21	RAC13J24 4S21	RAC13J30 4S21	RAC13J36 4S21	RAC13J42 4S21	RAC13J48 4S21	RAC13J60 4S21
Unit Supply Voltage		208-230V, 1ϕ, 60Hz						
Normal Voltage Range		187 to 252						
Minimum Circuit Ampacity		10.0	12.4	14.7	17.9	21.5	21.1	34.5
Max. Overcurrent Device Amps		15	20	25	30	35	35	60
Min. Overcurrent Device Amps		15	15	15	20	25	25	35
Compressor	Type	Rotary	Recip	Recip	Recip	Recip	Recip	Scroll
	Rated Load	7.6	9.3	10.6	13.1	16	15.7	26.4
Amps	Locked Rotor	40	43	54	74	88	84	134
Crankcase Heater		No	No	No	No	No	No	No
Factory External Discharge Muffler		No	No	No	No	No	Yes	No
Factory External Check Valve		No	No	No	No	No	No	No
HS Kit Required with TXV <sup>4</sup>		Yes	Yes	Yes	Yes	Yes	Yes	No
Fan Diameter Inches		17.5	17.5	17.5	22.0	22.0	22.0	24.0
Fan Motor	Rated HP	1/12	1/8	1/4	1/4	1/4	1/4	1/4
	Rated Load Amps	0.5	0.8	1.4	1.5	1.5	1.5	1.5
	Nominal RPM	1100	1075	1100	850	850	850	850
	Nominal CFM	1400	1950	2050	3200	3050	2950	3400
Coil	Face Area Sq. Ft.	9.60	9.60	9.60	13.07	14.16	14.16	18.68
	Rows Deep	1	1	1	1	1	1	1
	Fin / Inches	23	23	23	23	23	23	23
Liquid Line Set OD (Field Installed)		3/8	3/8	3/8	3/8	3/8	3/8	3/8
Vapor Line Set OD (Field Installed)		5/8	3/4	3/4	3/4	7/8	7/8	7/8
Unit Charge (Lbs. - Oz.)		3 - 3	3 - 13	3 - 14	4 - 9	4 - 10	4 - 9	5 - 8
Charge Per Foot, Oz.		0.58	0.62	0.62	0.62	0.67	0.67	0.67
Operating Weight Lbs.		97	129	131	145	164	173	220

## ADD-ON COILS

FOR USE WITH SPLIT-SYSTEM COOLING  
MODELS: CF, CM, CU  
600 - 2000 CFM 1.5 - 5 TON COILS



**MULTI-POSITION  
FULL CASED  
CM**



**UPFLOW/DOWNFLOW  
FULL CASED  
CF**



**UNCASED  
UPFLOW  
CU**

### DESCRIPTION

MaxAlloy™ aluminum indoor coils are specially designed to be installed with UPG furnaces or modular air handlers as part of a matched air conditioning or heat pump system.

UPG indoor coils can be applied with indoor orifices and/or TXVs according to the application. Most indoor coil models are available as "flex" coils for installation of the specific expansion device in the field.

CF series full cased coils are suitable for upflow or downflow applications.

CM series full cased coils have the added flexibility of multi-position installation. They are shipped as upflow / horizontal left and are easily convertible to downflow / horizontal right.

CU series uncased coils are designed for upflow-only applications on top of furnaces.

If CF or CM coils are installed without the casing, a Diverter Shroud kit is required, as shown on the accessories page. CU coils include a factory-installed Diverter Shroud.

### FEATURES

**Cabinet** – Constructed of heavy gauge galvanized steel with a primer and finish coat providing a high quality corrosion resis-tant finish.

**MaxAlloy™ Coil** – Long life aluminum coils built to deliver last-ing performance, efficiency and reliability.

**OXBOX™**  
A TRANE® BRAND

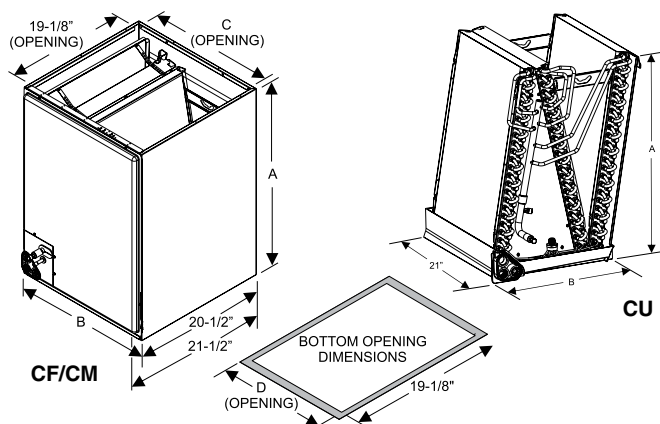
### UPFLOW/DOWNFLOW FULL CASED

The Oxbox line of heating and cooling products offer you flexible and affordable options for your HVAC equipment needs. The function of indoor air coils is simple: heating or cooling your system's air and removing humidity. Oxbox indoor air coils make that process as effective as possible, maximizing the efficiency of all system components—and keeping you as comfortable as possible in all seasons.



**J4GXC**

Models	Dimensions		Refrigerant Connections	
	Height	Width	Line Size	
	A	B	Liquid	Vapor
J4GXCA003	20	14.5	3/8	3/4
J4GXCA004	20	17.5		
J4GXCA007	26	21		
J4GXCA010	30	24-1/2		7/8



### Dimensions - CF Upflow/Downflow Full Cased Coils

Models <sup>1</sup>	Dimensions				Refrigerant Connections	
	Height	Width	Opening	Widths	Liquid	Vapor
	A	B	C	D		
CF30A	25-1/2	14-1/2	13-1/2	13-1/2	3/8	3/4
CF36B	25-5/8	17-1/2	16-1/2	16-1/2		
CF36C	23	21	20	20		7/8
CF48C	27	21	20	20		
CF60C	33	21	20	20		
CF60D	32-3/4	24-1/2	23-1/2	23-1/2	3/8	7/8
CF64D	32-3/4	24-1/2	23-1/2	23-1/2		

### Dimensions - CM Multi-Position Full Cased Coils

Models	Dimensions				Refrigerant Connections	
	Height	Width	Opening	Widths	Liquid	Vapor
	A	B	C	D		
CM24A	19-1/2	14-1/2	13-1/2	13-1/2	3/8	3/4
CM24B	19	17-1/2	16-1/2	16-1/2		
CM30A	25-1/2	14-1/2	13-1/2	13-1/2		
CM30B	23	17-1/2	16-1/2	16-1/2		
CM36B	25-5/8	17-1/2	16-1/2	16-1/2		
CM48C	33	21	20	20		
CM48D	32-3/4	24-1/2	23-1/2	23-1/2		7/8
CM60C	33	21	20	20		
CM60D	32-3/4	24-1/2	23-1/2	23-1/2		

### Dimensions - CU Uncased Coils

Models	Dimensions		Refrigerant Connections	
	Height	Width	Line Size	
	A	B	Liquid	Vapor
CU24A	15-3/8	13-3/8	3/8	3/4
CU24B	15-1/4	16-3/8		
CU30B	19-1/2	16-3/8		
CU36B	21-1/2	16-3/8		
CU36C	21-1/8	19-7/8		
CU42C	23-1/8	19-7/8		
CU48C	25-1/8	19-7/8		7/8
CU60C	29-1/4	19-7/8		

**FOR USE WITH  
SPLIT-SYSTEM  
COOLING &  
HEAT PUMPS**

## MODELS: J4AH SERIES



## SINGLE PIECE PSC AIR HANDLERS

## DESCRIPTION

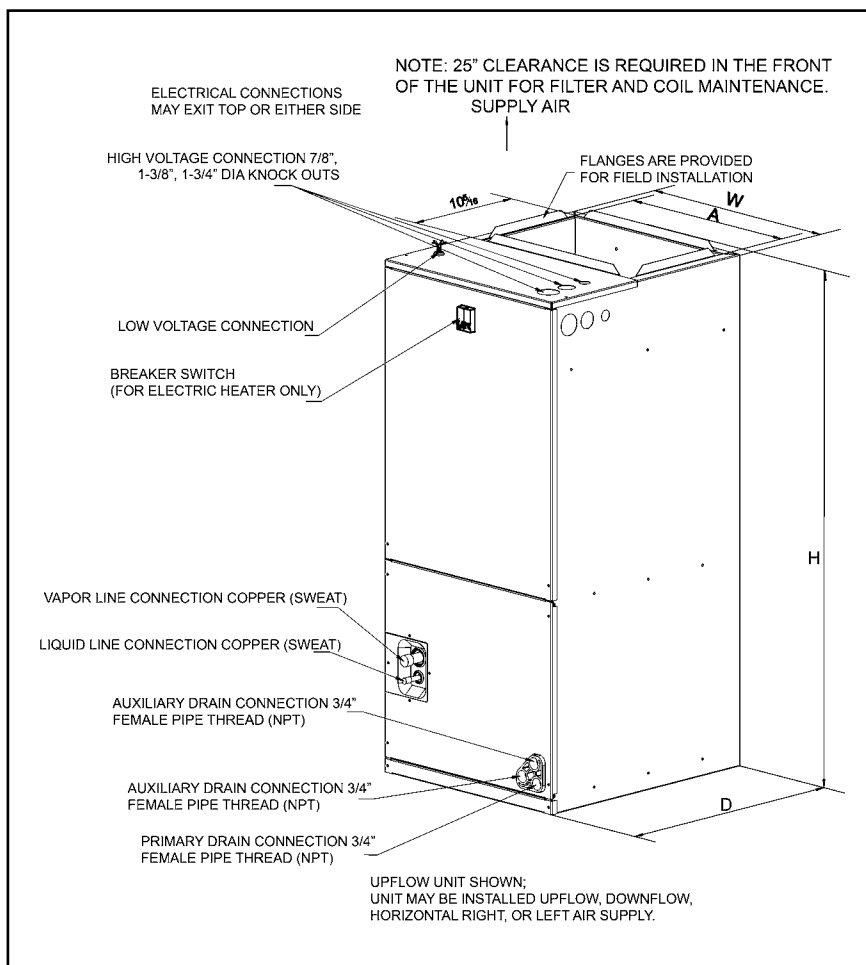
The Xbox fan coil line offers you flexible and affordable options for your HVAC equipment needs. It's also the ultimate in application flexibility. This unit may be used for upflow, downflow, horizontal right, or horizontal left applications.

- Unique Cabinet Design-Metal shell and glass cotton thermal insulation layer
- Multi-Position UP/Down Flow Horizontal Left /Right
- Braze in Refrigerant Connection
- Primary/Secondary Condensate Connections
- Blower with Integrated Slide Deck for Easy Removal
- Inner-groove aluminum tube and high-efficiency aluminumfin Coil with Integrated Slide Deck for Easy Removal
- More auxiliary Electric Heaters optional
- PSC 3 Speed Motor
- High Efficiency
- Integrated Horizontal Drain pans and metal Vertical Drain
- Fused 24V Power
- Suitable for Manufactured/Mobile Home Use.

## WARRANTY

Standard 5-year limited parts warranty.

## DIMENSIONS & DUCT CONNECTION DIMENSIONS







## SINGLE PIECE PSC AIR HANDLERS

### ELECTRICAL DATA FOR SINGLE SOURCE POWER SUPPLY: 208/230-1-60

Air Handler Models	Heater Models	Heater KW	Field Wiring			
			Min. Circuit Ampacity		MOP. <sup>1</sup>	
			208V	230V	208V	230V
18	JAYHTR1A05BRKR	5	24.4	27.9	25	25
	JAYHTR1A08BRKR	7.5	35.7	40.9	40	45
	JAYHTR1A10BRKR	10	47	53.9	50	60
24	JAYHTR1A05BRKR	5	25.9	29.4	30	30
	JAYHTR1A08BRKR	7.5	37.2	42.4	40	45
	JAYHTR1A10BRKR	10	55.4	55.4	50	60
30	JAYHTR1A05BRKR	5	25.5	29	30	35
	JAYHTR1A08BRKR	7.5	36.8	42	40	45
	JAYHTR1A10BRKR	10	48.1	55	50	60
	JAYHTR1A15BRKR	15	48.1	55	50	60
36	JAYHTR1A05BRKR	5	26.4	29.9	30	30
	JAYHTR1A08BRKR	7.5	37.7	42.9	40	45
	JAYHTR1A10BRKR	10	49	55.9	50	60
	JAYHTR1A15BRKR	15	49	55.9	50	60
	JAYHTR1A20BRKR	20	49	55.9	50	60
48C	JAYHTR1A05BRKR	5	26.8	30.3	30	35
	JAYHTR1A08BRKR	7.5	38.1	43.3	40	50
	JAYHTR1A10BRKR	10	49.4	56.3	50	60
	JAYHTR1A15BRKR	15	49.4	56.3	50	60
	JAYHTR1A20BRKR	20	49.4	56.3	50	60
60C	JAYHTR1A05BRKR	5	28.3	31.8	30	40
	JAYHTR1A08BRKR	7.5	39.6	44.8	40	45
	JAYHTR1A10BRKR	10	50.9	57.8	60	60
	JAYHTR1A15BRKR	15	50.9	57.8	60	60
	JAYHTR1A20BRKR	20	50.9	57.8	60	60

1. MOP = Maximum Overcurrent Protection device; must be HACR type service disconnect or time delay fuse. Refer to the latest edition of the National Electric Code or in Canada the Canadian electrical Code and local codes to determine correct wire sizing.

### DIMENSIONS

Models	Dimensions <sup>1</sup>					Wiring Knockouts		Refrigerant Connections Line Size	
	Height	Width	Depth	A	E	F Power (Conduit)	G Control (Conduit)	Liquid	Vapor
J4AHP18	41-3/8	18	20-1/2	16	16-1/2	1/2" 1" 1-1/4"	1/2	3/8	3/4
J4AHP24	41	18	20-1/2	16	16-1/2				
J4AHP30	46-1/2	19-5/8	21-5/8	18	18-1/2				
J4AHP36	46-1/2	19-1/2	21-5/8	18	18-1/2				
J4AHP48	54-1/2	22	24	19-1/2	20				
J4AHP60	54-1/2	22	24	19-1/2	20				7/8

1. All dimensions are in inches..

### PHYSICAL & ELECTRICAL DATA

Models		18B	24B	30B	36B	48C	60C
Blower - Diameter x Width		10 x 8	10 x 8	10 x 10	10 x 10	10 x 10	10 x 10
Motor	HP	1/8 HP	1/3 HP	1/5 HP	1/2 HP	2/5 HP	1/2 HP
	Nominal RPM	705	1050	903	1050	925	990
Voltage		208/230	208/230	208/230	208/230	208/230	208/230
Full Load Amps @230V		1.36	2.6	1.8	3.0	3.01	3.8
Filter <sup>1</sup>	Type	DISPOSABLE OR PERMANENT					
	Size	16 x 20 x 1	16 x 20 x 1	18 x 20 x 1	18 x 20 x 1	20 x 22 x 1	20 x 22 x 1
	Permanent Type Kit						
Shipping / Operating Weight (lbs.)		117/104	114/101	143/128	141/125	177/159	177/159

1. Field supplied.

## Wall-Mounted Heat Pumps

### E9RKUA / E12RKUA / E18RKUA / E24RKUA

# Panasonic



**Indoor Unit**  
**CS-E9RKUA / CS-E12RKUA**



**Outdoor Unit**  
**CU-E9RKUA / CU-E12RKUA**



Wireless  
Remote  
Controller  
(Included)



Wired  
Remote Controller  
(CZ-RD516C-1)  
(Optional)



**Indoor Unit**  
**CS-E18RKUA / CS-E24RKUA**



**Outdoor Unit**  
**CU-E18RKUA / CU-E24RKUA**



Wireless  
Remote  
Controller  
(Included)



Wired  
Remote Controller  
(CZ-RD516C-1)  
(Optional)

Model No.			E9RKUA		E12RKUA		E18RKUA		E24RKUA	
Unit Model No.			Indoor Unit	Outdoor Unit	Indoor Unit	Outdoor Unit	Indoor Unit	Outdoor Unit	Indoor Unit	Outdoor Unit
			CS-E9RKUAW	CU-E9RKUA	CS-E12RKUAW	CU-E12RKUA	CS-E18RKUAW	CU-E18RKUA	CS-E24RKUAW	CU-E24RKUA
Performance & Electrical Ratings										
Capacity	Cooling	Btu/h	9,000 (4,100–10,200)		11,500 (4,100–13,300)		17,200 (5,800–19,800)		24,000 (5,800-27,200)	
	Heating	Btu/h	12,000 (4,100–14,100)		13,800 (4,100–16,300)		21,600 (5,800–22,000)		28,800 (5,800-29,200)	
Moisture Removal	High	Pints/H	1.3		1.7		3.0		7.6	
Dry Air Flow	High	CFM	425		450		670		670	
SEER	Cooling		23.0		22.5		19.5		19.0	
EER	Cooling		13.0		12.5		13.2		10.2	
HSPF	Heating		11.0		11.0		10.0		10.0	
Power Supply	V, Phase, Hz		230/208, 1PH, 60Hz		230V, 1PH, 60Hz		230 / 208V, 1PH, 60Hz		230 / 208V, 1PH, 60Hz	
Running Amps	Cooling	A	3.2 / 3.6		4.2 / 4.7		6.3 / 7.0		10.8 / 11.9	
	Heating	A	5.1 / 5.7		5.6 / 6.3		8.3 / 9.3		11.4 / 12.6	
Power Input	Cooling	W	690 (250–850)		920 (250–1,150)		1,300 (430–1,600)		2,350 (430–2,720)	
	Heating	W	1,120 (200–1,500)		1,250 (200–1,710)		1,750 (380–1,800)		2,500(380-2,660)	
Back-up Heater		kW	---		---		---		---	
Fuse or Circuit Breaker Capacity		A	15		15		20		25	
Features										
Controls			Microprocessor		Microprocessor		Microprocessor		Microprocessor	
Low Ambient Control			Equipped		Equipped		Equipped		Equipped	
Wireless Controller			Included		Included		Included		Included	
Wired Remote Controller (optional)			CZ-RD516C-1		CZ-RD516C-1		CZ-RD516C-1		CZ-RD516C-1	
Fan Speeds			5 Speeds + Auto		5 speeds + Auto		5 Speeds + Auto		5 Speeds + Auto	
Timer			24-hr Program		24-hr Program		24-hr Program		24-hr Program	
Air Deflection	Horizontal		Manual		Manual		Automatic		Automatic	
	Vertical		Automatic		Automatic		Automatic		Automatic	
Air Filter			Washable + Anti Microbial Filter		Washable + Anti Microbial Filter		Washable + Anti Microbial Filter		Washable + Anti Microbial Filter	
Refrigerant			R-410A		R-410A		R-410A		R-410A	
Refrigerant control			Electric Expansion Valve		Electric Expansion Valve		Electric Expansion Valve		Electric Expansion Valve	
Operation Sound	In(Hi/Me/La/Qt)	dB-A	40/25/20		43/28/20		47 / 39 / 36		48 / 40 / 37	
	Outdoor(Hi)	dB-A	47		48		49		51	
Refrigerant Piping	Type		Flare		Flare		Flare		Flare	
	Discharge	inches	1/4"		1/4"		1/4"		1/4"	
	Suction	inches	3/8"		1/2"		1/2"		5/8"	
Refrigerant Pipe Length			Ft. Max. 65.6		Max. 65.6		Max. 100		Max. 100	
Elevation Difference	Outdoor Above	Ft.	Max. 49.2		Max. 49.2		Max. 49.2		Max. 49.2	
	Outdoor Below	Ft.	Max. 49.2		Max. 49.2		Max. 49.2		Max. 49.2	
Dimensions & Weight			Indoor Unit	Outdoor Unit	Indoor Unit	Outdoor Unit	Indoor Unit	Outdoor Unit	Indoor Unit	Outdoor Unit
Height	inches		11-7/16"	21-9/32"	11-7/16"	21-9/32"	11-7/16"	31-5/16"	11-7/16"	31-5/16"
Width	inches		34-9/32"	30-23/32"	34-9/32"	30-23/32"	42-5/32"	34-15/32"	42-5/32"	34-15/32"
Depth	inches		8-7/16"	11-13/32"	8-7/16"	11-13/32"	9-15/32"	12-5/8"	9-15/32"	12-5/8"
Net Weight	Lbs.		20.0	82.0	20.0	82.0	26.0	132.0	26.0	132.0

\*\* This is maximum elevation difference when the indoor unit is located above the outdoor unit.



# PTAC UNITS

## PTW-Series

### MAIN FEATURES:

- Energy Efficient Operation with High EER (up to 11.6)
- Quiet 2 Fan Motors operation
- Industry Standard size (42" x 16")
- Attractive Appearance
- Easy to Operate Controls
- Solid State Control
- Fan Cycle Switch
- Discrete Electric Resistance Heater
- Freeze Protection
- 2-way Adjustable Discharge Louver
- Easy to Clean Up-front Filters
- Heat Pump Operation as low as 25°F (H/P only)
- Indoor Coil Freeze Control
- Manual Ventilation Control up to 70 CFM
- Weather-Resistant Super Seal
- Front Desk Control Capability
- Remote Control Capability
- Temperature Limiter
- Load Shedding Control Capability
- Random Restart Circuit
- Automatic Emergency Heat
- Compressor Restart Function



### MODEL IDENTIFICATION

**PTW 09 2 \* C 2**

SANYO Packaged Terminal A/C

Nominal Cooling Capacity

06: 7000BTU    12: 12000BTU  
09: 9000BTU    15: 15000BTU

Voltage:

2: 230/208V  
3: 265V

Development Series #

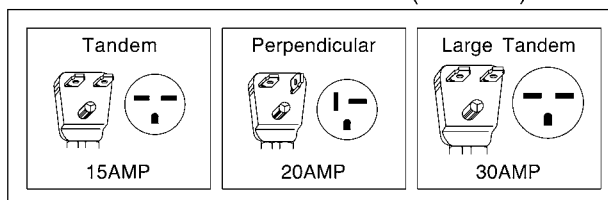
Unit Type: C: Cooling Only w/E. Heater  
H: Heat Pump w/E. Heater

Heater Size (Refer to the table below)

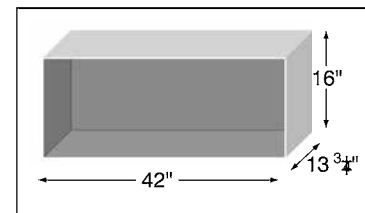
**Heater Specification Table**

Heater Designator	230 / 208V Model			
	Heater Amp	Watt	Min. Amp	BTU/h
2	11.1/10.0	2550/2090	15	8600/7100
3	15.0/13.6	3450/2820	20	11700/9600
5	21.7/19.7	5000/4090	30	17000/13900
Heater Designator	265V Model			
	Heater Amp	Watt	Min. Amp	BTU/h
3	11.3	3000	15	10200
4	15.1	4000	20	13600
5	18.9	5000	30	17000

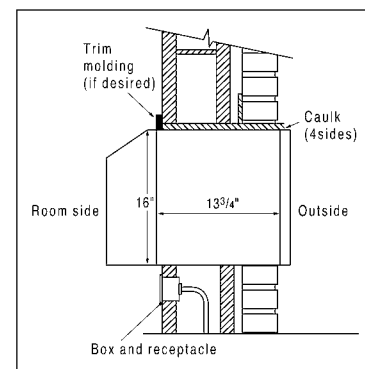
### CORD PLUG AND WALL OUTLET (230/208V)



### WALL CASE DIMENSIONS

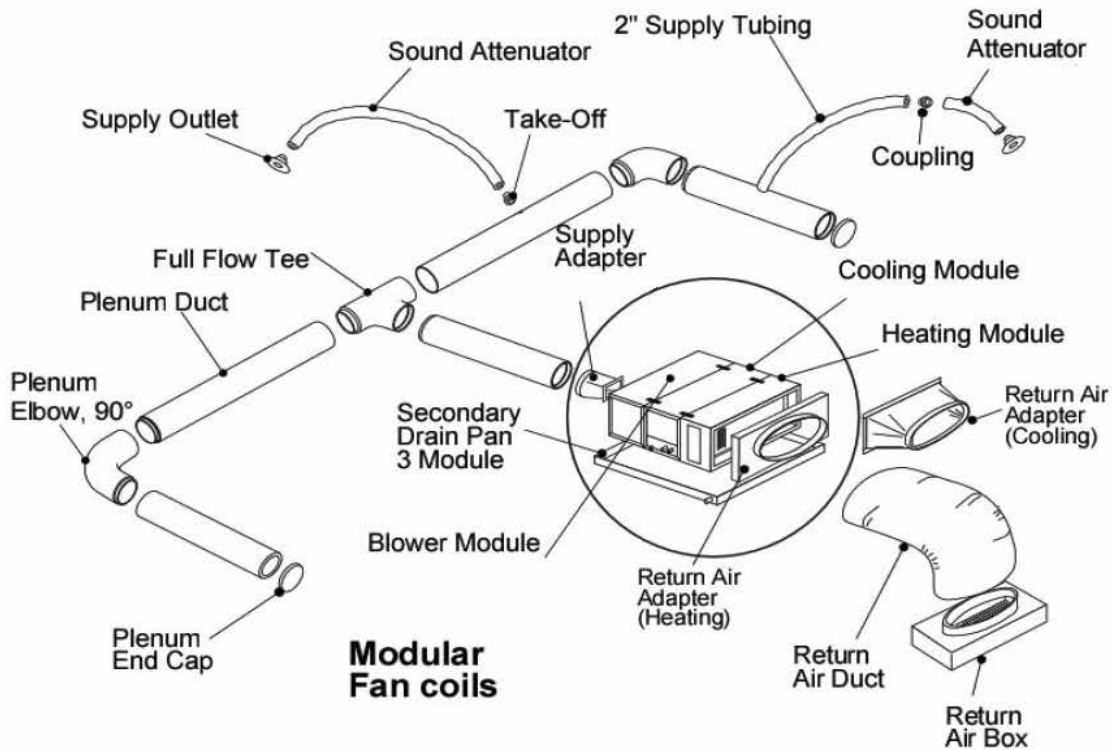


### MINIMUM WALL SLEEVE OPENING



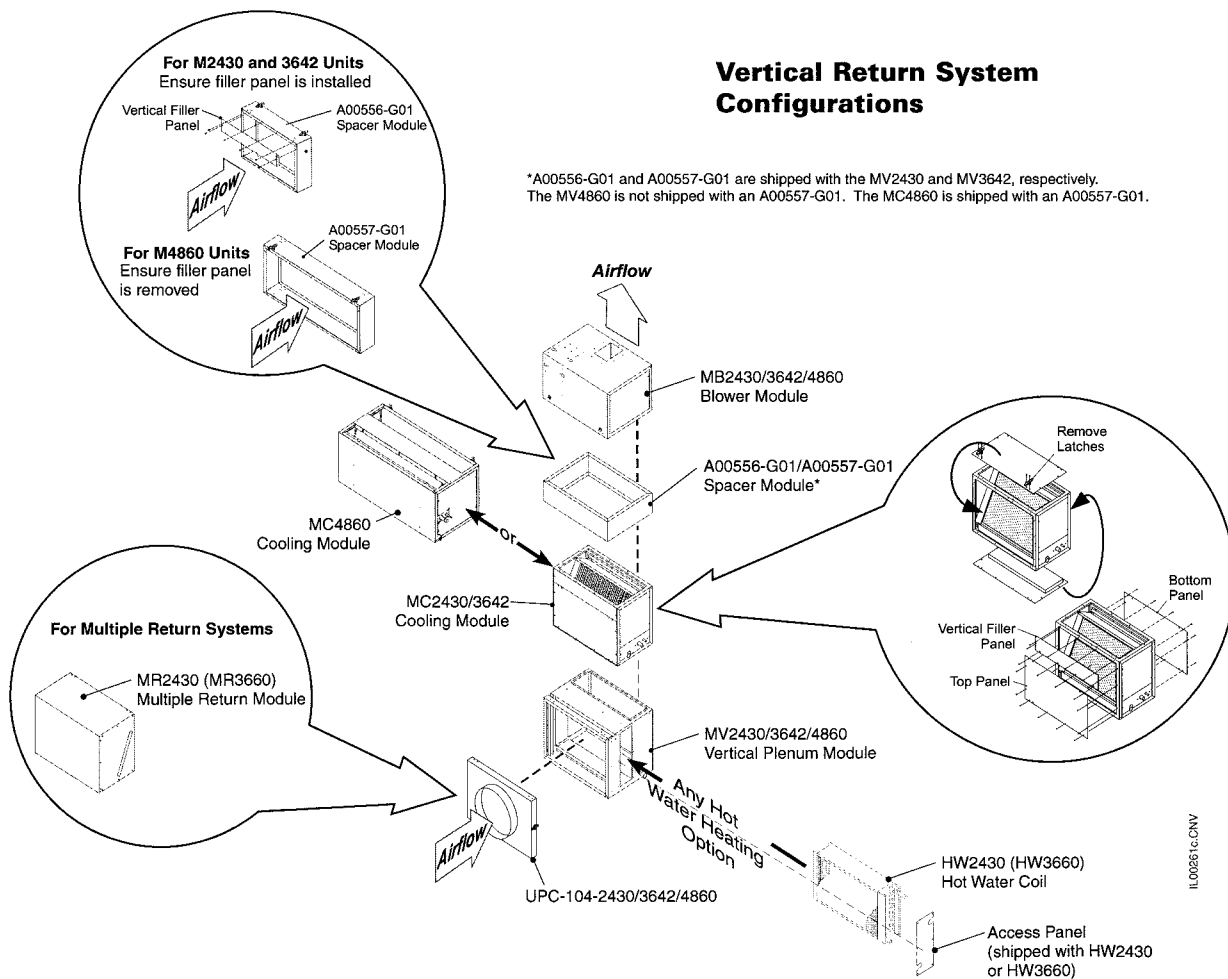
### SPECIFICATION

Model Number	COOLING & ELECTRIC HEATING MODEL							
	PTW0723H5C	PTW0734H5C	PTW0923H5C	PTW0934H5C	PTW1223H5C	PTW1234H5C	PTW1523H5C	PTW1534H5Ch
Voltage Rating	230/208	265	230/208	265	230/208	265	230/208	265
Cooling Capacity (BTU/h)	7100/7000	7100	9100/8900	9100	12000/11900	12000	14200/14000	14200
EER	11.6/11.6	11.6	11.4/11.4	11.4	10.9/10.9	10.9	9.5/9	6 9.5
Power (Watts)	610/600	610	800/780	800	1100/1090	1100	1490/1460	1490
Amp F.L.	2.7/2.9	2.4	3.5/3.8	3.1	4.9/5.4	4.2	6.9/7.2	5.8
Amp L.R.	17	13	22	15	29	24	41	31
CFM Hi	315/285	315	315/285	315	410/370	410	410/370	410
CFM Low	275/235	275	275/235	275	355/320	355	355/320	355
Moisture Removal (Pints/h)	1.8	1.8	2.3	2.3	2.8	2.8	3.8	3.8
Sensible Heat Ratio	0.71	0.71	0.71	0.71	0.69	0.69	0.65	0.65
Vent CFM	65	65	65	65	70	70	70	70
Weight (Ship/Net)	110/95	110/95	110/95	110/95	120/105	120/105	120/105	120/105



### Vertical Return System Configurations

\*A00556-G01 and A00557-G01 are shipped with the MV2430 and MV3642, respectively. The MV4860 is not shipped with an A00557-G01. The MC4860 is shipped with an A00557-G01.



The Unico System is a small-duct central heating and air conditioning system that utilizes compact, modular air handlers and flexible 2" supply tubing to supply conditioned air to homes and commercial spaces. The flexible supply tubing snakes through a structure's existing cavities, eliminating the need for extensive remodeling or the construction of soffits or other concealments. This tubing terminates in round, plastic or wood outlets, about the size of a CD, that can be painted or stained to match any décor. A slotted outlet is also available.

The Unico System is 1/3 the size of conventional HVAC systems and can fit into smaller spaces. Once installed, the system is virtually invisible.

The modules can be arranged in a horizontal, upflow, or downflow configuration.

Blowers suffixed with an "L" are low speed modules intended for new systems and most replacement applications and provide improved efficiency and radiated sound levels. Units suffixed with an "H" are high-speed modules intended for replacement installations with existing Unico System and other high static ducts that are restrictive and impractical to upgrade.

The Unico System operates at a higher static pressure than conventional duct systems and has unique design and layout requirements for proper air distribution. It is important that the manufacturer's installation instructions be followed exactly to achieve maximum effectiveness.



### BLOWER/MODULE

Match blower module with appropriate cooling/heat pump module (and/or heating module if hot water or electric heat are required).

LCB Blower modules have an electronic enhanced control board.

PSC Motor	Usage	Voltage	Tonnage	CFM @1.5" ESP	Dimensions (In.)			Shipping Wgt.
					W	D	H	
U1218L-1ST2EX	Blower & Coil	208-230/1/60	1 to 1 1/2	370	20	38	12	100
M2430BL2-ST2	Blower	208-230/1/60	2 to 2 1/2	600	25	13.75	17.5	62
M3036BL2-ST2	Blower	208-230/1/60	2 1/2 to 3	1000	30	13.75	17.5	72
M3642BL2-ST2	Blower	208-230/1/60	3 to 3 1/2	1000	38	13.75	17.5	72
M4860BL2-ST2	Blower	208-230/1/60	4 to 5	1250	38	13.75	17.5	85
<b>ECM Motor, SMART Board</b>								
U1218L-1EC1EX	Blower & Coil	115/1/60	1 to 1 1/2	300, 1.2" ESP, 160W	20	38	12	100
U1218L-1EC2EX	Blower & Coil	208-230/1/60	1 to 1 1/2	300, 1.2" ESP, 160W	20	38	12	100
M2430BL1-EC1	Blower	115/1/60	2 to 2 1/2	500, 1.2" ESP, 206W	25	13.75	17.5	62
M2430BL1-EC2	Blower	208-230/1/60	2 to 2 1/2	500, 1.2" ESP, 206W	25	13.75	17.5	62
M3036BL1-EC1	Blower	115/1/60	2 1/2 to 3	500, 1.2" ESP, 206W	30	13.75	17.5	62
M3036BL1-EC2	Blower	208-230/1/60	2 1/2 to 3	500, 1.2" ESP, 206W	30	13.75	17.5	62
M3642BL1-EC1	Blower	115/1/60	3 to 3 1/2	752, 1.2" ESP, 280W	38	13.75	17.5	72
M3642BL1-EC2	Blower	208-230/1/60	3 to 3 1/2	752, 1.2" ESP, 280W	38	13.75	17.5	72
M4860BL1-EC1	Blower	115/1/60	4 to 5	1000, 1.2" ESP, 346W	38	13.75	17.5	72
M4860BL1-EC2	Blower	208-230/1/60	4 to 5	1000, 1.2" ESP, 346W	38	13.75	17.5	72



### COOLING MODULE

These evaporator coil modules can be easily installed with the matching Unico System blower modules. M1218AC includes coil.

- Use unit width as a selection guide

Part No.	Usage	Tonnage	Dimensions (In.)			Shipping Wgt. (Lbs.)
			W	D	H	
M2430CL1-B	Cooling, R410A	2 to 2 1/2	25	13.75	17.5	48
M3036CL1-B	Cooling, R410A	2 1/2 to 3	30	13.75	17.5	67
MC3642CL1-B	Cooling, R410A	3 to 3 1/2	38	13.75	17.5	74
M4860CL1-B	Cooling, R410A	4 to 5	38	24	17.5	67
M2430CL1-C	Chilled Water Cooling Module	2 to 2-1/2	25	13.75	17.5	48
M3036CL1-C	Chilled Water Cooling Module	2-1/2 to 3	30	13.75	17.5	67
M3642CL1-C	Chilled Water Cooling Module	2-1/2 to 3	38	13.75	17.5	67
M4860CL1-C	Chilled Water Cooling Module	4 TO 5	38	24	17.5	105

**HEATING MODULE**

Match with appropriate blower module for heating only applications or to improve cooling air flow and provide for future heat capability (sleeve only-add appropriate coil).

Part No.	Tonnage	Capacity (BTUH)	Description	Dimensions (In.)			Shipping Wgt. (Lbs.)
				W	D	H	
MH2430	2 to 2 1/2	—	Sleeve only	25	12	17 1/2	20
MH3660	3 to 5	—	Sleeve only	38	12	17 1/2	27
HW2430	2 to 2 1/2	73800	Hot Water Coil only	—	—	—	33
HW3660	3 to 5	120000	Hot Water Coil only	—	—	—	48

**ELECTRIC HEAT COIL**

The electric furnaces are designed to provide primary heating or auxiliary heating in a heat pump system.

Ships with a 10" round adapter. All units 230v/1ph.

Part No.	K.W.	System Matchup	Min. CFM
WON0202	2	All	200
WON0502	5	All	250
WON0752	7.5	All	300
WON1002	10	2430, 3642, 4860	500
WON1502	15	2430, 3642, 4860	600
WON2002	20	3642, 4860	800

**VERTICAL RETURN PLENUM**

The MV module features a built in secondary drain pan with a 3/4" PVC socket connection, pleated filter, and place for an optional hot water coil.

Part No.	Tonnage	Dimensions (In.)		
		L	W	H
M2430V1	2 to 2 1/2	25	17.5	18.25
M3036V1	2 1/2 to 3	30	17.5	18.25
M3642V1	3 to 3 1/2	38	17.5	18.25
M4860V1	4 to 5	38	23	18.25

**HORIZONTAL RETURN PLENUM**

Vertical plenum kits include Plenum Module, Spacer Module (except 4860), pleated filter, 2 insulated filler plates and 2 brackets (except 4860), screws, latches latch keepers and insulation strips.

Part No.	Tonnage	Dimensions (In.)		
		L	W	H
MR2430	2 to 2 1/2	25	13.75	17.5
MR3660	3 to 3 1/2	38	13.75	17.5

**RETURN GRILLE/FILTER**

Includes throwaway filter, 2 duct bands and clips.

Note: Unico supplies a return duct system, but field supplied systems are acceptable as long as pressure drop including filter does not exceed .15" W.G.

Part No.	Tonnage	Dimensions (In.)		
		L	W	Duct
UPC01-1218	1 to 1 1/2	15.5	10	12
UPC01-2430	2 to 2 1/2	25.25	14.25	14
UPC01-3036	2 1/2 to 3	30.25	14.25	16
UPC01-3642	3 to 3 1/2	30.25	14.25	18
UPC01-4860	4 to 5	30.25	24.25	20

**RETURN AIR ADAPTER, HEATING MODULE**

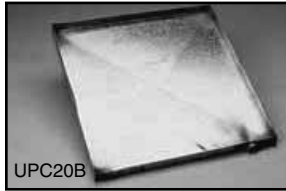
- Mates directly to heating module
- No additional fabrication
- Use for horizontal or vertical installations
- Height 17.5 in.

Part No.	Usage	Width (In.)	Duct Dia. (In.)
UPC104-1218	1218	20	12
UPC104-2430	2430	25	14
UPC104-3036	3036	30	16
UPC104-3642	3642	38	18
UPC104-4860	4860	38	20

**SUPPLY AIR PLENUM ADAPTER**

- 1" insulation blanket provided
- Transitions blower module to indicated round duct

Part No.	Usage	Diameter (In.)	Length (In.)
UPC61-1218	1218	7	12
UPC61-2430	2430	7	12
UPC61-3036	3036	9	18
UPC61-3642	3642	9	18
UPC61-4860	4860	10	18



### SECONDARY DRAIN PAN

- For added protection against condensate drainage

UPC20B

Part No.	Usage	Modules	Dimensions (In.)		
			L	W	H
UPC94	1218	1	42	24	1.5
UPC20B	2430	2	31.5	29	1.5
UPC20C	2430	3	43.75	29	1.5
UPC27B	3036	2	31.5	34	1.5
UPC27C	3036	3	43.75	34	1.5
UPC24B	3642	2	31.5	42	1.5
UPC24C	3642/4860	3	43.75	42	1.5
UPC24D	4860	3	54	42	1.5



### CRIMPING TOOL

UPC54

Part No.	Description
UPC54	Clamp Pliers
UPC55	Hole Cutter



### OUTLET KIT, 2 INCH

Kits include list below plus specific itemized takeoffs.

UPC56B supply outlet (off-white)

UPC53 scrim core clamp "575"

UPC52 supply tube clamp "605"

UPC51 toggle and screw

UPC35 balancing orifice kit

UPC42 winter shutoff

UPC38 supply duct coupling

Takeoff balancing cap

Part No.	Description	Includes Above Plus
UPC80F-1	Fiberglass Single Outlet Kit	UPC23 Fiberglass Takeoff + UPC26C 12' Sound Alternator tube
UPC89F	Fiberglass Multi-Install Kit	UPC23 Fiberglass Takeoffs
UPC80M-1	Metal Single Outlet Kit	UPC28 Metal Takeoff + UPC26C 12' Sound Alternator tube
UPC89M	Metal Multi-Install Kit	UPC28 Metal Takeoffs



### SOUND ATTENUATOR

- Tough aluminized mylar outer wrap
- Spun-bonded nylon and helical wire core
- Fully insulated
- 12' length
- Certified as an air duct per UL181

Part No.	ID (In.)	R-Factor	Pkg. Quantity
UPC26C	2.0	R-3.2	6



### RETURN AIR ADAPTER, COOLING MODULE

- Includes insulation wrap shipped loose

UPC59-2430

Part No.	Usage	Dimensions (In.)			
		L	H	Depth	Duct
UPC59-2430	2430	23	13.5	11.5	14
UPC59-3036	3036	27	13.5	11.5	16
UPC59-3642	3642	35	13.5	10	18
UPC59-4860	4860	35	11.5	15	20



### RETURN AIR DUCT

- 10 Ft

Part No.	R Value	Usage	Duct Dia. (In.)
UPC04-1218	R4.2	1218	12
UPC04-2430	R4.2	2430	14
UPC04-3036	R4.2	3036	16
UPC04-3642	R4.2	3642	18
UPC04-4860	R4.2	4860	20



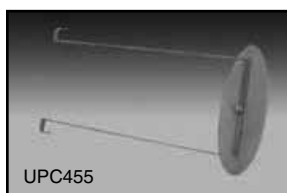
### SUPPLY TUBING

- Tough aluminized mylar outer wrap
- Two-ply aluminum core
- 25' length
- Certified as an air duct per UL181

Part No.	ID (In.)	R-Factor	Pkg. Quantity
UPC25	2	R-3.2	4

**SLOTTED OUTLET**

Part No.	Description
UPC67A	90° Slotted Outlet w/hardware
UPC68	Straight Slotted Outlet w/hardware

**OUTLET ACCESSORIES**

Part No.	Description
UPC45	Outlet Deflector, 2", each
UPC51	Outlet Toggle and Screw pkg. 10
UPC88	Outlet Screen, 2", pkg. 20

**WINTER SHUTOFF**

Part No.	Description
UPC42	Winter Supply Shutoff, 2"

**PLENUM TAKE OFF**

- Provides positive connection to ductwork
- UPC23 for round or square duct

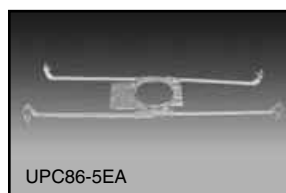
Part No.	Tube Diameter (In.)	Description
UPC23B	2.0	For 1" Fiberglass
UPC28	2.0	For Metal, Includes Tape Ring, Gasket

**TUBING CLAMP**

Part No.	Description
UPC52	Supply Tubing Clamp, 2", pkg 50
UPC53	Sound Atten. Tube Clamp, 2", pkg 50

**SUPPLY TERMINATOR**

Part No.	Description
UPC56B	Standard 0° Outlet, 2.0"
UPC57	Oak Face 0° Outlet, 2.0"

**PLASTER FRAME KIT**

Designed for locating outlet before sheetrock is applied (for new construction)

- 2 Left hanger bars
- 2 Right hanger bars
- 1 Plaster frame

Part No.	Includes above plus
UPC86	Plaster Frame Kit, pkg. 5

**BALANCING ORIFICE KIT**

Takeoff kit includes:  
3 disks 15% - 50%

Outlet kit includes:  
3 caps 15% - 50%

Part No.	Description
UPC35-15	Takeoff Orifice Kit
UPC36-15	Outlet Orifice Kit

**SUPPLY DUCT COUPLING**

Includes tubing clamps and tape rings

Part No.	Description
UPC38C10EA	Supply Connector, 2.0", ea

**EXPANSION VALVE, R410A**

Part No.	Usage
A00805013	2 Ton, A/C
A00808014	3 to 3 1/2 Ton, A/C
A00805015	4 Ton, A/C
A00808014	3 to 3 1/2 Ton, Heat Pump
A00808015	4 Ton, Heat Pump





## CONDENSATE PUMPS

### MEDIUM CONDENSATE PUMP - CB15 Series

These are Beckett's most popular and dependable units. They can handle high acidity condensation produced by High Efficiency furnaces. Units include a high impact polystyrene tank with a capacity of 1.7 U.S. quarts, a flame retardant plastic cover, 3/8" O.D. check valve, stainless steel shaft and a 6 ft power cord with a 3 prong plug. Mounting slots are provided on each end of the tank cover. 20 ft of clear vinyl tubing.



Model Number	H	W	L	Outlet	Volts	Amps	Watts	H.P.	Gallons per hour @ 60 Hz & Rated Voltage							Safety Switch	Check Valve	Cord w/plug	Shut Off (ft)
									1'	5'	10'	15'	20'	30'	40'				
CB151UL	6.25"	5"	11-1/8"	3/8" O.D.	115	1.1	60	1/50	85	70	50	—	—	—	—	Y	Y	Y	15'
CB201TUL*	6.25"	5"	11-1/8"	3/8" O.D.	115	2.2	85	1/30	105	95	73	36	—	—	—	Y	Y	Y	20'

\*Includes tubing

### COMPACT MODEL LOW PRO® CONDENSATE PUMP CL20 Series

This High Efficiency furnace model is compact and has a Low Profile so that they can be used in applications where space is limited. This unit is capable of handling high acidity condensation. The shut off height for the CL20 is 20 ft. Model includes a built in safety switch, 3/8" O.D. check valve, stainless steel shaft, 6 ft power cord with a 3 prong plug, high impact polystyrene tank and a flame retardant plastic cover.



Model Number	H	W	L	Outlet	Volts	Amps	Watts	H.P.	Gallons per hour @ 60 Hz & Rated Voltage							Safety Switch	Check Valve	Cord w/plug	Shut Off (ft)
									1'	5'	10'	15'	20'	30'	40'				
CL201UL	4-3/4"	5"	11-1/8"	3/8" Barb	115	1.95	90	1/30	115	92	62	33	—	—	—	Y	Y	Y	20'

### LARGE CONDENSATE PUMP - CB22 Series

This large condensate pump is capable of handling high acidity condensation. The shut off height for this model is 22 ft. Model includes a high impact, flame retardant ABS plastic tank with a capacity of one U.S. gallon, a flame retardant plastic motor cover, 3/8" O.D. check valve and stainless steel shaft.



Model Number	H	W	L	Outlet	Volts	Amps	Watts	H.P.	Gallons per hour @ 60 Hz & Rated Voltage							Safety Switch	Check Valve	Cord w/plug	Shut Off (ft)
									1'	5'	10'	15'	20'	30'	40'				
CB221UL	9-1/4"	6"	12"	3/8" O.D.	115	1.5	120	1/25	108	90	70	45	19	—	—	Y	Y	Y	22'
CB222UL	9-1/4"	6"	12"	3/8" O.D.	230	1.0	120	1/25	108	90	70	45	19	—	—	Y	Y	Y	22'

### INDUSTRIAL CONDENSATE PUMP - CB50 Series

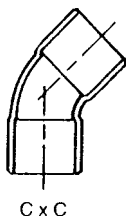
These are Beckett's Industrial models for your heavy duty pumping applications. They both feature a built in safety switch, a pre-wired terminal block, non-corrosive brass wetted parts and stainless steel shaft. CU55 has a 1/2" O.D. check valve. Model has a high quality painted galvanized steel cover and a high impact polystyrene tank with a capacity of 1 U.S. gallon.



Model Number	H	W	L	Outlet	Volts	Amps	Watts	H.P.	Gallons per hour @ 60 Hz & Rated Voltage							Safety Switch	Check Valve	Cord w/plug	Shut Off (ft)
									1'	5'	10'	15'	20'	30'	40'				
CB501UL	10-1/8"	6"	12"	1/2" O.D.	115	4.0	360	1/5	476	441	396	351	306	216	126	Y	Y	Y	48'

**ELBOWS, 45°**  
**NO. WE-504, C x C**

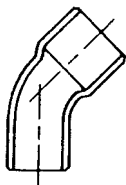
PART #	SIZE NOMINAL	SIZE O.D.
W3005	1/8"	1/4"
W3012	1/4"	3/8"
W3021	3/8"	1/2"
W3026	1/2"	5/8"
W3030	5/8"	3/4"
W3034	3/4"	7/8"
W3044	1"	1-1/8"
W3050	1-1/4"	1-3/8"
W3055	1-1/2"	1-5/8"
W3059	2"	2-1/8"
W3063	2-1/2"	2-5/8"
W3073	4"	4-1/8"



C x C

**ELBOWS, 45°**  
**NO. WE-505, FTG x C**

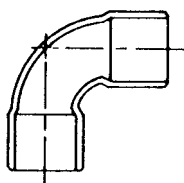
PART #	SIZE NOMINAL	SIZE O.D.
W3312	1/4"	3/8"
W3321	3/8"	1/2"
W3326	1/2"	5/8"
W3330	5/8"	3/4"
W3334	3/4"	7/8"
W3344	1"	1-1/8"
W3350	1-1/4"	1-3/8"
W3355	1-1/2"	1-5/8"
W3363	2-1/2"	2-5/8"



FTG x C

**ELBOWS, 90° SHORT RADIUS**  
**NO. WE-500, C x C**

PART #	SIZE NOMINAL	SIZE O.D.
W2003	1/8"	1/4"
W2009	1/4"	3/8"
W2017	3/8"	1/2"
W1622	1/2"	5/8"
W2028	5/8"	3/4"
W1634	3/4"	7/8"
W1647	1"	1-1/8"
W2084	1-1/4"	1-3/8"
W2085	1-1/2"	1-5/8"
W2086	2"	2-1/8"
W2087	2-1/2"	2-5/8"
W2088	3"	3-1/8"
W2089	3-1/2"	3-5/8"



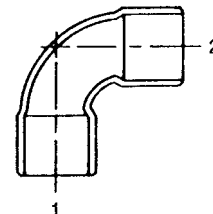
C x C

**ELBOWS 90° LONG RADIUS**  
**NO. WE-500L, C x C**

PART#	SIZE NOMINAL	SIZE O.D.	PART#	SIZE NOMINAL	SIZE O.D.
W2715	1/8"	1/4"	W2734	3/4"	7/8"
W2710	--	5/16"	W2747	1"	1-1/8"
W2716	1/4"	3/8"	W2055	1-1/4"	1-3/8"
W2717	3/8"	1/2"	W2063	1-1/2"	1-5/8"
W2722	1/2"	5/8"	W2072	2"	2-1/8"
W2728	5/8"	3/4"			

**ELBOWS, 90° SHORT RADIUS - REDUCING**  
**NO. WE-500R, C x C**

PART #	SIZE NOMINAL		SIZE O.D.	
	1	2	1	2
W2011	1/4	x 1/8	3/8	x 1/4
W2019	3/8	x 1/4	1/2	x 3/8
W2023	1/2	x 3/8	5/8	x 1/2
W2025		x 1/4		x 3/8
W2029	5/8	x 1/2	3/4	x 5/8
W2030		x 3/8		x 1/2
W2035	3/4	x 5/8	7/8	x 3/4
W2036		x 1/2		x 5/8
W2037		x 3/8		x 1/2
W2049	1	x 3/4	1-1/8	x 7/8
W2050		x 5/8		x 3/4
W2051		x 1/2		x 5/8
W2056	1-1/4	x 1	1-3/8	x 1-1/8
A2638*		x 3/4		x 7/8
W2077	1-	x 1-1/4	1-5/8	x 1-3/8
W2078	2	x 1-1/2	2-1/8	x 1-5/8
A2778*	3	x 2	3-1/8	x 2-1/8



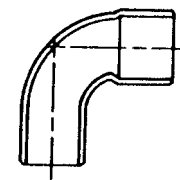
\* CAST BRONZE

**ELBOWS, 90° LONG RADIUS - REDUCING**  
**NO. WE-500LR, C x C**

PART #	SIZE NOMINAL	SIZE O.D.
W2067	1-1/2 x 3/4	1-5/8 x 7/8

**ELBOWS, 90° SHORT RADIUS**  
**NO. WE-503, FTG x C**

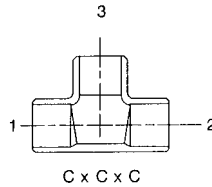
PART #	SIZE NOMINAL	SIZE O.D.
W2312	1/4"	3/8"
W2321	3/8"	1/2"
W1652	1/2"	5/8"
W2330	5/8"	3/4"
W1654	3/4"	7/8"
W2344	1"	1-1/8"
W2384	1-1/4"	1-3/8"
W2385	1-1/2"	1-5/8"
W2386	2"	2-1/8"
W2387	2-1/2"	2-5/8"
W2388	3"	3-1/8"
W2390	4"	4-1/8"



FTG x C

**ELBOWS, 90° LONG RADIUS**  
**NO. WE-503L, FTG x C**

PART #	SIZE NOMINAL	SIZE O.D.
W2822	1/2"	5/8"
W2828	5/8"	3/4"
W2834	3/4"	7/8"
W2847	1"	1-1/8"
W2350	1-1/4"	1-3/8"

**TEES**
**TEES - REDUCING**  
**ON. WT-600R, RR, BH**


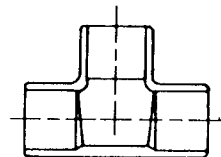
PART #	SIZE NOMINAL			SIZE O.D.		
	1	2	3	1	2	3
W40368	1/8	x 1/8	x 1/4	1/4	x 1/4	x 3/8
W4016	1/4	x 1/4	x 1/2	3/8	x 3/8	x 5/8
W4005			x 3/8			x 1/2
W40324			x 1/8			x 1/4
W40330		1/8	x 1/4		1/4	x 3/8
W40332			x 1/8			x 1/4
W4015	3/8	x 3/8	x 1/2	1/2	x 1/2	x 5/8
W4002			x 1/4			x 3/8
W40350			x 1/8			x 1/4
W4003		x 1/4	x 3/8		x 3/8	x 1/2
W4004			x 1/4			x 3/8
W40363		x 1/8	x 3/8		x 1/4	x 1/2
W40366			x 1/8			x 1/4
W4047	1/2	x 1/2	x 3/4	5/8	x 5/8	x 7/8
W4029			x 5/8			x 3/4
W4007			x 3/8			x 1/2
W4008			x 1/4			x 3/8
W4009		x 3/8	x 1/2		x 1/2	x 5/8
W4010			x 3/8			x 1/2
W4012		x 1/4	x 1/2		x 3/8	x 5/8
W4013			x 1/4			x 3/8
W4046	5/8	x 5/8	x 3/4	3/4	x 3/4	x 7/8
W4018			x 1/2			x 5/8
W4019			x 3/8			x 1/2
W4020			x 1/4			x 3/8
W4021		x 1/2	x 5/8		x 5/8	x 3/4
W4022			x 1/2			x 5/8
W4025		x 3/8	x 5/8		x 1/2	x 3/4
W4027			x 3/8			x 1/2
W4065	3/4	x 3/4	x 1	7/8	x 7/8	x 1-1/8
W4032			x 5/8			x 3/4
W4033			x 1/2			x 5/8
W4034			x 3/8			x 1/2
W4036		x 5/8	x 3/4		x 3/4	x 7/8
W4041		x 1/2	x 3/4		x 5/8	x 7/8
W4043			x 1/2			x 5/8
W4044			x 3/8			x 1/2
W40232		x 3/8	x 3/8		x 1/2	x 1/2
W4049	1	x 1	x 3/4	1-1/8	x 1-1/8	x 7/8
W4051			x 1/2			x 5/8
W4055		x 3/4	x 1		x 7/8	x 1-1/8
W4056			x 3/4			x 7/8
W4059			x 3/8			x 1/2
W4061		x 1/2	x 1		x 5/8	x 1-1/8
W4062			x 3/4			x 7/8
W40100	1-1/4	x 1-1/4	x 1-1/2	1-3/8	x 1-3/8	x 1-5/8
W4069			x 1			x 1-1/8
W4070			x 3/4			x 7/8
W4071			x 1/2			x 5/8
W4073		x 1	x 1-1/4		x 1-1/8	x 1-3/8

PART #	SIZE NOMINAL			SIZE O.D.		
	1	2	3	1	2	3
W4074	1-1/4	x 1	x 1	1-3/8	x 1-1/8	x 1-1/8
W4075			x 3/4			x 7/8
W4076			x 1/2			x 5/8
W4078		x 3/4	x 1-1/4		x 7/8	x 1-3/8
W4080			x 3/4			x 7/8
W40121	1-1/2	x 1-1/2	x 2	1-5/8	x 1-5/8	x 2-1/8
W4085			x 1-1/4			x 1-3/8
W4086			x 1			x 1-1/8
W4087			x 3/4			x 7/8
W4088			x 1/2			x 5/8
W4090	1-1/2	x 1-1/4	x 1-1/2	1-5/8	x 1-3/8	x 1-5/8
W4091			x 1-1/4			x 1-3/8
W4092			x 1			x 1-1/8
W4093			x 3/4			x 7/8
W4095		x 1	x 1-1/2		x 1-1/8	x 1-5/8
W4096			x 1-1/4			x 1-3/8
W4097			x 1			x 1-1/8
W4098			x 3/4			x 7/8
W4099		x 3/4	x 1-1/2		x 7/8	x 1-5/8
W40244		x 1/2	x 1-1/2		x 5/8	x 1-5/8
W40144	2	x 2	x 2-1/2	2-1/8	x 2-1/8	x 2-5/8
W40103			x 1-1/2			x 1-5/8
W40104			x 1-1/4			x 1-3/8
W40105			x 1			x 1-1/8
W40106			x 3/4			x 7/8
W40107			x 1/2			x 5/8
W40109		x 1-1/2	x 2		x 1-5/8	x 2-1/8
W40110			x 1-1/2			x 1-5/8
W40111			x 1-1/4			x 1-3/8
W40113			x 3/4			x 7/8
W40114			x 1/2			x 5/8
W40115		x 1-1/4	x 2		x 1-3/8	x 2-1/8
W40245		x 1	x 2		x 1-1/8	x 2-1/8
W40248		x 3/4	x 2		x 7/8	x 2-1/8
A1812	2-1/2	x 2-1/2	x 3	2-5/8	x 2-5/8	x 3-1/8
W40124			x 2			x 2-1/8
W40125			x 1-1/2			x 1-5/8
W40126			x 1-1/4			x 1-3/8
W40127			x 1			x 1-1/8
W40129			x 1/2			x 5/8
W40132		x 2	x 1-1/2		x 2-1/8	x 1-5/8
W40149	3	x 3	x 1-1/2	3-1/8	x 3-1/8	x 1-5/8
W40145			x 1/2			x 5/8
W40167		x 2	x 3		x 2-1/8	x 3-1/8
W40196	4	x 4	x 2	4-1/8	x 4-1/8	x 2-1/8
W40195			x 1-1/2			x 1-5/8

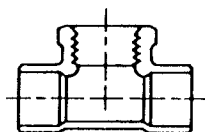
**TEES,  
NO. WT-600**

PART #	SIZE NOMINAL	SIZE O.D.
W40306	1/8"	1/4"
W40313	--	5/16"
W4000	1/4"	3/8"
W4001	3/8"	1/2"
W4006	1/2"	5/8"
W4017	5/8"	3/4"
W4031	3/4"	7/8"

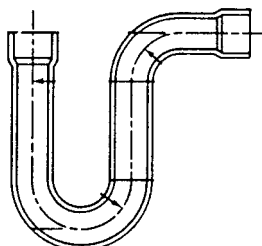
PART #	SIZE NOMINAL	SIZE O.D.
W4048	1"	1-1/8"
W4068	1-1/4"	1-3/8"
W4084	1-1/2"	1-5/8"
W40102	2"	2-1/8"
W40123	2-1/2"	2-3/8"


**TEES, FORGED BRASS  
NO. WT-602 CxCxF**

PART #	SIZE NOMINAL			SIZE O.D.		
	1	2	3	1	2	3
W4228	1/4"	x 1/4"	x 1/4"	3/8"	x 3/8"	x 3/8"
W4229	1/4"	x 1/4"	x 1/8"	3/8"	x 3/8"	x 1/4"
W4259	3/8"	x 3/8"	x 1/4"	1/2"	x 1/2"	x 3/8"
W4283	1/2"	x 1/2"	x 3/8"	5/8"	x 5/8"	x 1/2"


**SUCTION LINE P-TRAPS  
NO. WE-544P**

PART #	SIZE NOMINAL	SIZE O.D.
W60999	1/2"	5/8"
W61008	5/8"	3/4"
W61000	3/4"	7/8"
W61001	1"	1-1/8"
W61002	1-1/4"	1-3/8"



C x C

**SA-902 SANDCLOTH**

PART #
WG SC10

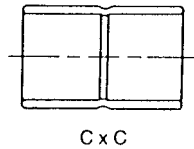
If you can't find what you need...

**CALL US**

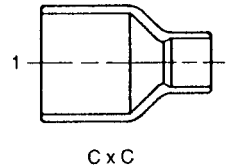
We have it or can get it

**COUPLINGS**
**COUPLINGS, ROLLED STOP**  
 NO. WC-400, C x C

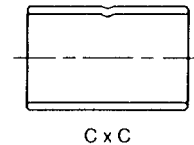
PART #	SIZE NOMINAL	SIZE O.D.
W1000	--	1/8"
W1003	--	1/4"
W1009	1/4"	3/8"
W1017	3/8"	1/2"
W1022	1/2"	5/8"
W1028	5/8"	3/4"
W1034	3/4"	7/8"
W1047	1"	1-1/8"
W1055	1-1/4"	1-3/8"
W1063	1-1/2"	1-5/8"
W1072	2"	2-1/8"
W1082	2-1/2"	2-5/8"


**COUPLINGS, REDUCING**  
 NO. WC-400R, C x C

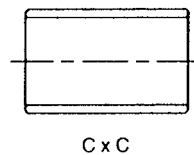
PART #	SIZE NOMINAL 1 2	SIZE O.D. 1 2
W1002	--	3/16 x 1/8
W1005	--	1/4 x 1/8
W1010	--	3/8 x 5/16
W1019	3/8 x 1/4	1/2 x 3/8
W1021	x 1/8	x 1/4
W1023	1/2 x 3/8	5/8 x 1/2
W1025	x 1/4	x 3/8
W1029	5/8 x 1/2	3/4 x 5/8
W1030	x 3/8	x 1/2
W1031	x 1/4	x 3/8
W1035	3/4 x 5/8	7/8 x 3/4
W1036	x 1/2	x 5/8
W1037	x 3/8	x 1/2
W1038	x 1/4	x 3/8
W1049	1 x 3/4	1-1/8 x 7/8
W1050	1 x 5/8	1-1/8 x 3/4
W1051	x 1/2	x 5/8
W1052	x 3/8	x 1/2
W1056	1-1/4 x 1	1-3/8 x 1-1/8
W1058	x 3/4	x 7/8
W1060	x 1/2	x 5/8
W1064	1-1/2 x 1-1/4	1-5/8 x 1-3/8
W1065	x 1	x 1-1/8
W1067	x 3/4	x 7/8
W1073	2 x 1-1/2	2-1/8 x 1-5/8
W1074	x 1-1/4	x 1-3/8
W1075	x 1	x 1-1/8
W1079	x 1/2	x 5/8
W1083	2-1/2 x 2	2-5/8 x 2-1/8
W1084	x 1-1/2	x 1-5/8
W1093	3 x 2-1/2	3-1/8 x 2-5/8


**COUPLINGS, STAKED STOP**  
 NO. WC-400S, C x C

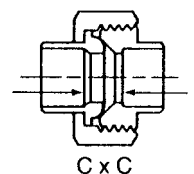
PART #	SIZE NOMINAL	SIZE O.D.
W10142	--	5/16"


**COUPLINGS, NO STOP**  
 NO. WC-400NS, C x C

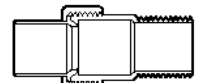
PART #	SIZE NOMINAL	SIZE O.D.
W1901	1/4"	3/8"
W1902	3/8"	1/2"
W1903	1/2"	5/8"
W1904	5/8"	3/4"
W1905	3/4"	7/8"
W1906	1"	1-1/8"
W1907	1-1/4"	1-3/8"
W1908	1-1/2"	1-5/8"
W1909	2"	2-1/8"


**COUPLINGS, UNION**  
 NO. WC-407, C x C

PART #	SIZE NOMINAL	SIZE O.D.
W8003	1/2"	5/8"
W8004	3/4"	7/8"
W8005	1"	1-1/8"
A11205*	1-1/4"	1-3/8"
A11206*	1-1/2"	1-5/8"
A11207*	2"	2-1/8"


**COUPLINGS, UNION**  
 NO. C-108, C x MPT

PART #	SIZE NOMINAL	SIZE O.D.
A11211*	3/4 x 3/4"	7/8 x 3/4"



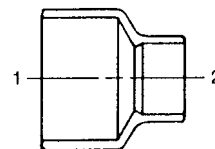
\*Cast Bronze

**BUSHINGS****BUSHINGS, EXTENDED**

NO. WC-403, FTG x C

PART #	SIZE NOMINAL		SIZE O.D.	
	1	2	1	2
W1306	1/4	x 1/8	3/8	x 1/4
W1312	3/8	x 1/4	1/2	x 3/8
W1314	3/8	x 1/8	1/2	x 1/4
W1315	1/2	x 3/8	5/8	x 1/2
W1317	1/2	x 1/4	5/8	x 3/8
W1320	5/8	x 1/2	3/4	x 5/8
W1321	5/8	x 3/8	3/4	x 1/2
W1325	3/4	x 5/8	7/8	x 3/4
W1326	3/4	x 1/2	7/8	x 5/8
W1327	3/4	x 3/8	7/8	x 1/2
W1337	1	x 3/4	1-1/8	x 7/8

PART #	SIZE NOMINAL		SIZE O.D.	
	1	2	1	2
W1338	1	x 5/8	1-1/8	x 3/4
W1339	1	x 1/2	1-1/8	x 5/8
W1343	1-1/4	x 1	1-3/8	x 1-1/8
W1345	1-1/4	x 3/4	1-3/8	x 7/8
W1350	1-1/2	x 1-1/4	1-5/8	x 1-3/8
W1351	1-1/2	x 1	1-5/8	x 1-1/8
W1358	2	x 1-1/2	2-1/8	x 1-5/8
W1359	2	x 1-1/4	2-1/8	x 1-3/8



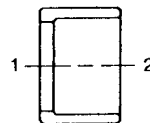
FTG x C

**BUSHINGS, FLUSH**

NO. WC-106, FTG x C

PART #	SIZE NOMINAL		SIZE O.D.	
	1	2	1	2
W1706	1/4	x 1/8	3/8	x 1/4
W1712	3/8	x 1/4	1/2	x 3/8
W1714		x 1/8		x 1/4
W1715	1/2	x 3/8	5/8	x 1/2
W1717		x 1/4		x 3/8
W1720	5/8	x 1/2	3/4	x 5/8
W1721		x 3/8		x 1/2
W1725	3/4	x 5/8	7/8	x 3/4
W1726		x 1/2		x 5/8
W1727		x 3/8		x 1/2

PART #	SIZE NOMINAL		SIZE O.D.	
	1	2	1	2
W1737	1	x 3/4	1-1/8	x 7/8
W1738		x 5/8		x 3/4
W1739		x 1/2		x 5/8
W1743	1-1/4	x 1	1-3/8	x 1-1/8
W1745		x 3/4		x 7/8
W1751	1-1/2	x 1	1-5/8	x 1-1/8
W1758	2	x 1-1/2	2-1/8	x 1-5/8
W1759		x 1-1/4		x 1-3/8



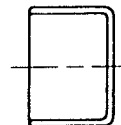
FTG x C

**CAPS****CAPS,**

NO. WC-415, C

PART #	SIZE NOMINAL	SIZE O.D.
W7002	1/8"	1/4"
W7004	1/4"	3/8"
W7006	3/8"	1/2"
W7007	1/2"	5/8"
W7008	5/8"	3/4"
W7009	3/4"	7/8"

PART #	SIZE NOMINAL	SIZE O.D.
W7011	1"	1-1/8"
W7012	1-1/4"	1-3/8"
W7013	1-1/2"	1-5/8"
W7014	2"	2-1/8"
W7015	2-1/2"	2-5/8"

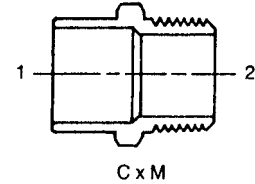


C

**ADAPTORS**
**ADAPTORS,**  
**NO. WC-401, C x M**

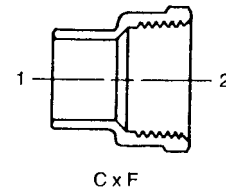
PART #	SIZE NOMINAL		SIZE O.D.	
	1	2	1	2
W1106	1/8	x 1/4	1/4	x 1/4
W1110	—		5/16	x 1/4
W1114	1/4	x 3/8	3/8	x 3/8
W1115		x 1/4		x 1/4
W1124	3/8	x 1/2	1/2	x 1/2
W1125		x 3/8		x 3/8
W1126		x 1/4		x 1/4
W1129	1/2	x 1	5/8	x 1
W1130		x 3/4		x 3/4
W1131		x 1/2		x 1/2
W1132		x 3/8		x 3/8
W1139	5/8	x 1/2	3/4	x 1/2
W1145	3/4	x 1	7/8	x 1
W1146		x 3/4		x 3/4

PART #	SIZE NOMINAL		SIZE O.D.	
	1	2	1	2
W1147	3/4	x 1/2	7/8	x 1/2
W1162	1	x 1-1/4	1-1/8	x 1-1/4
W1163		x 1		x 1
W1164		x 3/4		x 3/4
W1165		x 1/2		x 1/2
W1170	1-1/4	x 1-1/2	1-3/8	x 1-1/2
W1171		x 1-1/4		x 1-1/4
W1172		x 1		x 1
W1179	1-1/2	x 1-1/2	1-5/8	x 1-1/2
W1180		x 1-1/4		x 1-1/4
W1187	2	x 2	2-1/8	x 2
W1188		x 1-1/2		x 1-1/2
W1196	2-1/2	x 2-1/2	2-5/8	x 2-1/2
W1199	3	x 3	3-1/8	x 3


**ADAPTORS,**  
**NO. WC-402, C x FPT**

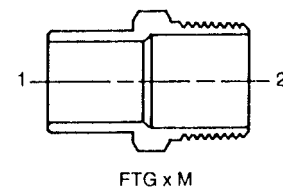
PART #	SIZE NOMINAL		SIZE O.D.	
	1	2	1	2
W1205	1/8	x 3/4	1/4	x 3/8
W1206		x 1/4		x 1/4
W1214	1/4	x 3/8	3/8	x 3/8
W1215		x 1/4		x 1/4
W1223	3/8	x 3/4	1/2	x 3/4
W1224		x 1/2		x 1/2
W1225		x 3/8		x 3/8
W1230	1/2	x 3/4	5/8	x 3/4
W1231		x 1/2		x 1/2
W1232		x 3/8		x 3/8
W1233		x 1/4		x 1/4
W1238	5/8	x 3/4	3/4	x 3/4
W1239		x 1/2		x 1/2
W1245	3/4	x 1	7/8	x 1

PART #	SIZE NOMINAL		SIZE O.D.	
	1	2	1	2
W1246	3/4	x 3/4	7/8	x 3/4
W1247		x 1/2		x 1/2
W1263	1	x 1	1-1/8	x 1
W1264		x 3/4		x 3/4
W1265		x 1/2		x 1/2
W1270	1-1/4	x 1-1/2	1-3/8	x 1-1/2
W1271		x 1-1/4		x 1-1/4
W1272		x 1		x 1
W1278	1-1/2	x 2	1-5/8	x 2
W1279		x 1-1/2		x 1-1/2
W1287	2	x 2	2-1/8	x 2
W1296	2-1/2	x 2-1/2	2-5/8	x 2-1/2


**ADAPTORS**  
**NO. WC-404, FTG x M**

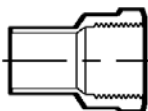
PART #	SIZE NOMINAL		SIZE O.D.	
	1	2	1	2
W1425	3/8	x 3/8	1/2	x 3/8
W1431	1/2	x 1/2	5/8	x 1/2
W1432		x 3/8		x 3/8
W1446	3/4	x 3/4	7/8	x 3/4

PART #	SIZE NOMINAL		SIZE O.D.	
	1	2	1	2
W1447	3/4	x 1/2	7/8	x 1/2
W1463	1	x 1	1-1/8	x 1
W1464		x 3/4		x 3/4
W1471	1-1/4	x 1-1/4	1-3/8	x 1-1/4



**ADAPTORS****FITTING**

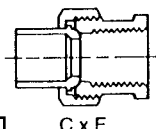
WC-405, FTG x FPT



PART # *	SIZE NOMINAL	SIZE O.D.
W1514	1/4 x 3/8	3/8 x 3/8
W1525	3/8 x 3/8	1/2 x 3/8
W1531	1/2 x 1/2	5/8 x 1/2
W1532	x 3/8	x 3/8
W1546	3/4 x 3/4	7/8 x 3/4
W1547	x 1/2	x 1/2
W1563	1 x 1	1-1/8 x 1
W1571	1-1/4 x 1-1/4	1-3/8 x 1-1/4
W1579	1-1/2 x 1-1/2	1-5/8 x 1-1/2
W1587	2 x 2	2-1/8 x 2

**ADAPTORS****UNION**

C-109, C x FPT



PART # *	SIZE NOMINAL	SIZE O.D.
A11422	1/2"	5/8"
A11423	3/4"	7/8"
A11424	1"	1-1/8"
A11425	1-1/4"	1-3/8"
A11426	1-1/2"	1-5/8"

\*CAST BRONZE

**ELBOWS**
**REDUCING ELBOW - 90°**,  
E-202, C x FPT

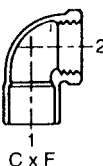
PART # *	SIZE NOMINAL	SIZE O.D.
A2641	1-1/4 x 1-1/2	1-3/8 x 1-5/8

\*CAST BRONZE

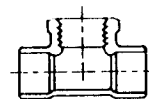
**HIGH EAR ELBOW - 90°**,  
E-211HE, C x FPT

PART # *	SIZE NOMINAL	SIZE O.D.
A3038	1/2"	5/8"

\*CAST BRONZE

**TEES****TEE, REDUCING**

T-302, C X C x FPT

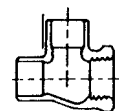


PART # *	SIZE NOMINAL	SIZE O.D.
A1512	1/2 x 1/2 x 1/2	5/8 x 5/8 x 1/2
A1538	3/4 x 3/4 x 3/4	7/8 x 7/8 x 3/4
A1539	x 1/2	x 1/2
A2655	1-1/4 x 1-1/4 x 1	1-3/8 x 1-3/8 x 1
A1644	1-1/2 x 1-1/2 x 1-1/2	1-5/8 x 1-5/8 x 1-1/2
A3663	x 1-1/4	x 1-1/4
A2688	x 1	x 1
A2673	x 3/4	x 3/4
A2703	2 x 2 x 1	2-1/8 x 2-1/8 x 1
A2706	x 3/4	x 3/4

\*CAST BRONZE

**TEE**

T-303, C x FPT x C



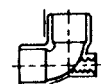
C x F x C

PART # *	SIZE NOMINAL	SIZE O.D.
A1548	3/4 x 3/4 x 3/4	7/8 x 3/4 x 7/8

\*CAST BRONZE

**TEE, BASEBOARD**

NO. T-301, C x FPT x C



C x F x C

PART # *	SIZE NOMINAL	SIZE O.D.
A7750	1/2 x 1/8 x 1/2	5/8 x 1/8 x 5/8
A7751	3/4 x 1/8 x 3/4	7/8 x 1/8 x 7/8
A7754	1 x 1/8 x 1	1-1/8 x 1/8 x 1-1/8
A7775	1-1/4 x 1/8 x 1-1/4	1-3/8 x 1/8 x 1-3/8

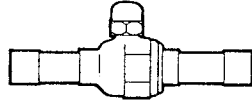
\*CAST BRONZE



**COMPRESSOR VALVES****BALL VALVES**

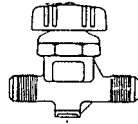
COMPATIBLE WITH REFRIGERANTS R-11, R-12,  
R-22, R-500, R-502.

PART #	SIZE O.D.
904203	3/8"
904204	1/2"
904205	5/8"
904307	7/8"
905409	1-1/8"
904511	1-3/8"
905613	1-5/8"
905717	2-1/8"

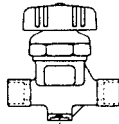
**PACKLESS LINE VALVES**

FLARE TO FLARE, TYPE I, CLASS IV

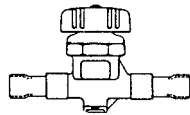
PART #	SIZE O.D.
A14833	1/4"
A14835	3/8"
A14836	1/2"
A14837	5/8"

**SOLDER TO SOLDER, TYPE I, CLASS II**

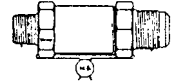
PART #	SIZE O.D.
A14842	5/8"

**EXTENDED END, TYPE I, CLASS II**

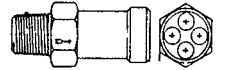
PART #	SIZE O.D.
A14848	1/4"
A14850	3/8"

**PRESSURE RELIEF VALVES****MPT INLET TO FLARE**

PART # - PSI	INLET	OUTLET
5230-350 5230-425	1/4"	3/8"
5231-235 5231-350 5231-425	3/8"	3/8"
5232-350 5232-425	1/2"	5/8"

**ATMOSPHERIC - MPT INLET**

PART # - PSI	INLET	OUTLET
HE 5221-425	1/4"	N/A

**VIBRATION ABSORBERS**  
**SWEAT CONNECTION**

PART #	SIZE / ID	SIZE / OD	MAX. PSI
F14	1/8"	1/4"	800
F38	1/4"	3/8"	800
F12	3/8"	1/2"	600
F58	1/2"	5/8"	500
F34	5/8"	3/4"	430
F78	3/4"	7/8"	370
F118	1"	1-1/8"	250
F138	1-1/4"	1-3/8"	200
F158	1-1/2"	1-5/8"	190
F218	2"	2-1/8"	170


**NITROGENIZED® ACR COPPER TUBE**  
 20 FT. LENGTHS

PART #	SIZE O.D.	WALL THICKNESS
3/8ACR	3/8"	.030
1/2ACR	1/2"	.035
5/8ACR	5/8"	.040
3/4ACR	3/4"	.042
7/8ACR	7/8"	.045
1-1/8ACR	1-1/8"	.050
1-3/8ACR	1-3/8"	.055
1-5/8ACR	1-5/8"	.060
2-1/8ACR	2-1/8"	.070
2-5/8ACR	2-5/8"	.080

**TYPE L**  
 20 FT. LENGTHS

PART #	SIZE O.D.	SIZE NOMINAL	WALL THICKNESS
3/8L	1/2"	3/8"	.035
1/2L	5/8"	1/2"	.040
3/4L	7/8"	3/4"	.045
1L	1-1/8"	1"	.050
1-1/4L	1-3/8"	1-1/4"	.055
1-1/2L	1-5/8"	1-1/2"	.060
2L	2-1/8"	2"	.070
2-1/2L	2-5/8"	2-1/2"	.080

**TYPE M**  
 20 FT. LENGTHS

PART #	SIZE O.D.	SIZE NOMINAL	WALL THICKNESS
3/8M	1/2"	3/8"	.025
1/2M	5/8"	1/2"	.028
3/4M	7/8"	3/4"	.032
1M	1-1/8"	1"	.035
1-1/4M	1-3/8"	1-1/4"	.042
1-1/2M	1-5/8"	1-1/2"	.049
2M	2-1/8"	2"	.058
3M	3-1/8"	3"	.072
4M	4-1/8"	4"	.095

**REFRIGERATION SERVICE TUBE**  
 50 FT. COILS

PART #	SIZE O.D.	WALL THICKNESS
1/8REF	1/8"	.030
3/16REF	3/16"	.030
1/4REF	1/4"	.030
5/16REF	5/16"	.032
3/8REF	3/8"	.032
1/2REF	1/2"	.032
5/8REF	5/8"	.035
5/8REF-100	5/8"	.035
3/4REF	3/4"	.035
7/8REF	7/8"	.045
1-1/8REF	1-1/8"	.050

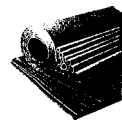
**LINE SETS**

PART #	LIQUID LINE	SUCTION LINE	INSULATION	LENGTH
610-25	3/8	5/8	3/8	25'
610-35	3/8	5/8	3/8	35'
610-50	3/8	5/8	3/8	50'
612-25	3/8	3/4	3/8	25'
612-35	3/8	3/4	3/8	35'
612-50	3/8	3/4	3/8	50'
614-25	3/8	7/8	3/8	25'
614-35	3/8	7/8	3/8	35'
614-50	3/8	7/8	3/8	50'

**COPPER TUBE INSULATION**

6' LENGTH, 3/8" WALL

PART #	SIZE	PART #	SIZE
38	3/8"	138	1-3/8"
12XX	1/2"	158	1-5/8"
58	5/8"	218	2-1/8"
34	3/4"	258	2-5/8"
78	7/8"	318X	3-1/8"
118	1-1/8"		

**INSULATED SHEET****CONTINUOUS ROLLS**

PART #	SIZE / IN.	THICKNESS
3648-34	36 x 48	3/4"
3648-1	36 x 48	1"

## FLARED BRASS TUBE FITTINGS

## FLARE NUT - OIL

PART #	TUBE - OD
41C	1/4
41 F	1/2
41 H	5/8



## FORGED FLARE NUT - REFRIG.

PART #	TUBE - OD
NS4C	1/4
NS4D	5/16
NS4E	3/8
NS4F	1/2
NS4FE	1/2 x 3/8
NS4H	5/8
NS4J	3/4
NS4M	7/8



## SWIVEL FORGED NUT CONNECTOR

PART #	TUBE - OD
US4C	1/4 x 1/4
US4D	5/16 x 5/16
US4E	3/8 x 3/8
US4H	5/8 x 5/8
US4J	3/4 x 3/4



## UNIONS

PART #	TUBE - OD
42C	1/4 x 1/4
42D	5/16 x 5/16
42E	3/8 x 3/8
G42EC	3/8 x 1/4
42H	5/8 x 5/8
42J	3/4 x 3/4
42M	7/8 x 7/8



## FEMALE CONNECTOR

PART #	TUBE - OD
46C	1/4 x 1/8
46CF	1/4 x 1/2



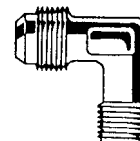
## MALE CONNECTOR (FL x MPT)

PART #	TUBE - OD
48C	1/4 x 1/8
48CC	1/4 x 1/4
48CE	1/4 x 3/8
48E	3/8 x 1/8
48EE	3/8 x 1/4
48EEE	3/8 x 3/8
48EF	3/8 x 1/2
48F	1/2 x 3/8
48FF	1/2 x 1/2
48H	5/8 x 1/2
48J	3/4 x 1/2
48JJ	3/4 x 3/4
48MJ	7/8 x 3/4



## MALE ELBOW

PART #	TUBE - OD x MPT
49C	1/4 x 1/8
49CC	1/4 x 1/4
49CE	1/4 x 3/8
49DE	5/16 x 3/8
49EE	3/8 x 1/4
49EEE	3/8 x 3/8
49EF	3/8 x 1/2
49F	1/2 x 3/8
49FF	1/2 X 1/2
49H	5/8 X 1/2
49HJ	5/8 x 3/4
49J	3/4 x 1/2



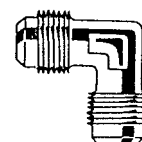
## FLARE PLUG

PART #	TUBE - OD
P2D	5/16
P2H	5/8
P2J	3/4



## FLARE UNION ELBOW

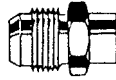
PART #	TUBE - OD
55C	1/4
55E	3/8



## FLARED BRASS TUBE FITTINGS

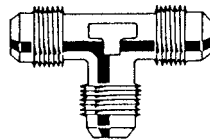
SOLDER CONNECTOR  
FLARE x SOLDER TUBE

PART #	TUBE - OD
US3-CC	1/4 x 1/4
US3FF	1/2 x 1/2



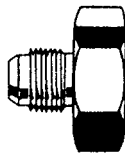
## FLARE TEE

PART #	TUBE - OD
44C	1/4
44D	5/16
44E	3/8
44F	1/2
44H	5/8
44 J	3/4



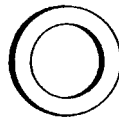
## DRUM CONNECTOR

PART #	TUBE - OD x MPT
K1-1	1/4 x 3/4
K1-8	1/4 x 1/2



## GASKET

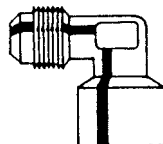
PART #	TUBE - OD
K1-F	1/2
K1J	3/4



## ELBOW

TUBE x FEMALE THREAD

PART #	SIZE
E4C	1/4 x 1/4
E4E	3/8 x 3/8
E4F	1/2 x 1/2



## GASKET

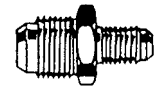
45° COPPER FLARE

PART #	TUBE - OD
B2B	3/16
B2E	3/8
B2F	1/2
B2H	3/4



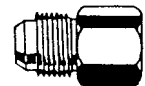
## REDUCING FLARE UNION

PART #	TUBE - OD
G42EC	3/8 x 1/4
UR2-84	1/2 x 1/4
UR2-86	1/2 x 3/8
UR2-106	5/8 x 3/8

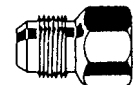


## FEMALE FLARE CONNECTOR

PART #	TUBE - OD x FPT
46C	1/4 x 1/8
U3-4B	1/4 x 1/4
46CF	1/4 x 3/8
U3-4D	1/4 x 1/2
U3-6A	3/8 x 1/8
U3-6C	3/8 x 3/8
U3-6D	3/8 x 1/2
U3-8B	1/2 x 1/4
U3-8C	1/2 x 3/8
U3-8D	1/2 x 1/2
U3-8E	1/2 x 3/4
U3-10C	5/8 x 3/8
U3-10D	5/8 x 1/2
U3-10E	5/8 x 3/4

REDUCING FLARE FITTING  
FEMALE x MALE

PART #	SIZE
UR3-44	1/4 x 1/4
UR3-45	1/4 x 5/16
UR3-46	1/4 x 3/8
UR3-48	1/4 x 1/2
UR3-54	5/16 x 1/4
UR3-68	3/4 x 1/2
UR3-86	1/2 x 3/8
UR3-810	1/2 x 5/8
UR3-106	5/8 x 3/8
UR3-108	5/8 x 1/2



## BRASS COMPRESSION FITTINGS

## SLEEVE

PART #	TUBE - OD
60C	1/4
60D	5/16
60E	3/8
60F*	1/2
60H*	5/8
60M	7/8



\*HEAVY

## STANDARD NUT

PART #	TUBE - OD
61C	1/4
61D	5/16
61E	3/8
61F	1/2
61H*	5/8
61J	3/4



## UNION

PART #	TUBE - OD
62A	1/8
62B	3/16
62C	1/4
62D	5/16
62E	3/8
62F*	1/2
62H*	5/8
62M	7/8



\*HEAVY

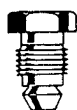
## REDUCING UNION

PART #	SIZE
62REC	3/8 x 1/4
62RFE	1/2 x 3/8
62RHF	5/8 x 1/2



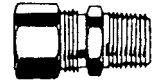
## PILOT LINE CONTROL NUT FOR THERMOSTATS

PART #	TUBE - OD
81 LC	1/4



## MALE CONNECTOR

PART #	TUBE - OD x MPT
68A	1/8 x 1/8
68C	1/4 x 1/8
68CC	1/4 x 1/4
68E	3/8 x 1/8
68EE	3/8 x 1/4
68EEE	3/8 x 3/8
68EJ	3/8 x 3/4
68F*	1/2 x 3/8
68FF*	1/2 x 1/2
68FJ*	1/2 x 3/4
68H*	5/8 x 1/2
68HJ*	5/8 x 3/4
68JJ	3/4 x 3/4
68J	3/4 x 1/2
68MF	7/8 x 1/2
68MJ	7/8 x 3/4



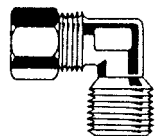
## FEMALE CONNECTOR

PART #	TUBE - OD x FPT
66EEE	3/8 x 3/8
66F	1/2 x 3/8



## MALE ELBOW

PART #	TUBE - OD x FPT
69C	1/4 x 1/8
69CC	1/4 x 1/4
69E	3/8 x 1/8
69EE	3/8 x 1/4
69EEE	3/8 x 3/8
69EF	3/8 x 1/2
69FF*	1/2 x 1/2
69H	5/8 x 1/2
69JJ	3/4 x 3/4



## UNION ELBOW

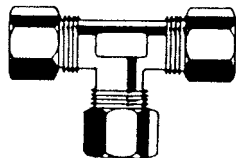
PART #	TUBE - OD
65C	1/4



## BRASS COMPRESSION FITTINGS

## TEE

PART #	TUBE - OD
64C	1/4
64D	5/16
64E	3/8
64F*	1/2
64H*	5/8
64J	3/4



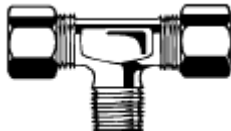
\*HEAVY

## REDUCING TEE

PART #	TUBE - OD
64CCE	1/4 x 1/4 x 3/8

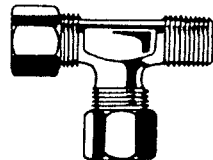
## W/MPT

PART #	SIZE
72C	1/4 x 1/4 x 1/8



## MALE RUN TEE

PART #	SIZE
71C	1/4 x 1/8 x 1/4

BRASS COMPRESSION TUBE FITTINGS  
POLYETHYLENE TUBING

## PLASTIC SLEEVE

PART #	TUBE - OD
460C	1/4



## INSERTS

PART #	TUBE - OD
461C	1/4



## BRASS PIPE FITTINGS

## SQUARE HEAD PLUG

PART #	MPT
109N	1"

BUSHING HEX HEAD PLUG  
MPT x FPT

PART #	SIZE
110C	1/4 x 1/8
110E	3/8 x 1/8
110EE	3/8 x 1/4
110FA	1/2 x 1/8
110FC	1/2 x 1/4
110J	3/4 x 1/2
110JC	3/4 x 1/4
110JE	3/4 x 3/8



## COUPLING

PART #	SIZE / FPT
L103A	1/8
103C	1/4



## CLOSE NIPPLES

PART #	SIZE / MPT
112A	1/8"



## BRASS PIPE FITTINGS

## PIPE NIPPLE

1/8" DIA.

PART #	LENGTH
117A1-1/2	1-1/2"
117A3	3"



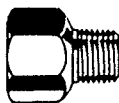
1/4" DIA.

PART #	LENGTH
117C1-1/2	1-1/2"
117C2	2"
117C2-1/2	2-1/2"
117C3	3"

## REDUCING ADAPTOR

FPT x MPT

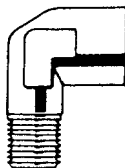
PART #	SIZE
120RFE	1/2 x 3/8



## 90° STREET ELBOW

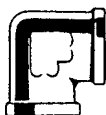
FPT x MPT

PART #	SIZE
116SA-97	1/8"
116SE-30	3/8"



## 90° ELBOW

PART #	SIZE / FPT
100A	1/8"
100C	1/4"



## TEE

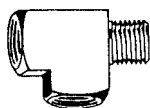
PART #	SIZE / FPT
101CX	1/4"



## TEE

FPT x MPT x FPT

PART #	SIZE
127C	1/4"



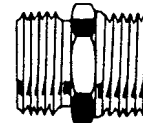
## BRASS GARDEN HOSE FITTINGS

## CONNECTOR

MALE HOSE x MPT

PART #	SIZE
748JJF	3/4 x 3/4*

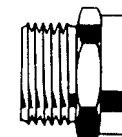
\*TAPPED UNDER MPT END.



## CONNECTOR

MALE HOSE x FPT

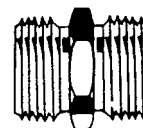
PART #	SIZE
746JJ	3/4"



## UNION

MALE HOSE

PART #	SIZE
757JJ	3/4"



## CAP

FEMALE HOSE

PART #	SIZE
708J	3/4"



## SWIVEL UNION

FEMALE HOSE

PART #	SIZE
703SJJ	3/4"



## EVAPORATIVE COOLER DRAIN

W/ LOCKNUT AND GASKET

MALE HOSE x FPT

PART #	SIZE
2CDJF	3/4 x 1/2



## WASHER

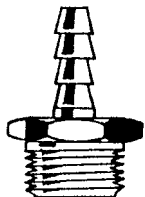
PART #	SIZE
700G	3/4"



## HOSE x MULTI BARB BRASS FITTINGS

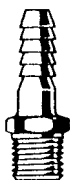
## HOSE BARB x MALE HOSE

PART #	SIZE
TAA2412	3/4 x 3/8barb
619HJ	3/4 x 5/8barb



## HOSE BARB x MPT

PART #	HOSE ID	x	MALE PIPE
220B	3/16	x	1/8
220E	3/8	x	1/8
220EE	3/8	x	1/4
220EEE	3/8	x	3/8



## HOSE BARB UNION

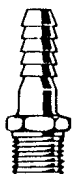
PART #	HOSE - ID
222E	3/8"
222F	1/2"



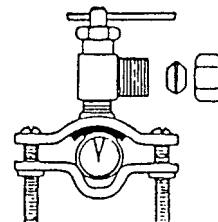
## NYLON HOSE BARB FITTINGS

CONNECTOR  
BARB x MPT

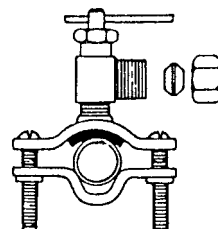
PART #	HOSE ID	x	MALE PIPE
NY220F	1/2	x	3/8
NY220FF	1/2	x	1/2

BRASS NEEDLE VALVES FOR  
COMPRESSION TUBINGSELF PIERCING NEEDLE  
VALVE AND SADDLE CLAMP

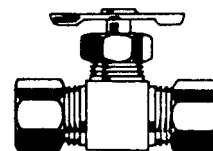
PART #	TUBE x MALE OD PIPE
123KCSP	1/4 x 1/8

NEEDLE VALVE AND  
SADDLE CLAMP

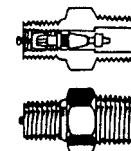
PART #	TUBE x MALE OD PIPE
123KC	1/4 x 1/8

NEEDLE VALVE  
COMPRESSION TUBE BOTH ENDS

PART #	TUBE - OD
106KC	1/4
106KE	3/8

TANK & VENT VALVES  
HEAVY SPRING CORE

PART #	TUBE - MPT
1VAH	1/8"







## REFRIGERATION ACCESSORIES

### TELE-SPOUT® OILER

Squeeze pressure on the container allows the oil to flow in any direction with the flexible spout.

PART #	DESCRIPTION
D01	4 OZ. BOTTLE WITH TELE-SPOUT



### POCKET TESTERS

Just the thing to make that fast electrical circuit check.

PART #	DESCRIPTION
TE2	HIGH VOLTAGE, 90-250VAC/DC
TE3	MULTI-VOLTAGE, 110, 220, 277 OR 440VAC/DC



## BRAZE-ON SERVICE VALVES

### Copper-To-Copper M-Series

The M-Series is the first and best braze-on, self-piercing copper saddle valve. It is widely used and easily installed on a charged line. After brazing the saddle portion onto line, the steel pin with valve core penetrates the line and is locked into place simply by tightening the cap. Available in sizes ranging from 1/4" to 1-1/8".



**PART # CD5514**  
copper saddle for 1/4" line

**PART # CD5558**  
copper saddle for 5/8" line

**PART # CD5516**  
copper saddle for 5/16" line

**PART # CD5578**  
copper saddle for 7/8" line

### FIN COMBS

Straighten and clean evaporator and condenser fins with these tough, durable nylon combs.

PART #	FINS PER INCH
P8	4, 5, 8 AND 10
P9	9 AND 15
P11	11 AND 13
P12	6, 7, 12 AND 14
P17	16 AND 17
P18	18 AND 20



### CHARGEFASTER

Chargefaster is a calibrated restrictor device designed to meter liquid refrigerant into the low side of the system.

PART #	DESCRIPTION
CH300	FOR SYSTEMS 5 TO 10 TONS



### ADJUSTABLE LINE TAP VALVES

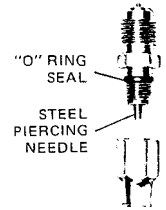
Threading wing cap on the depressor pin pierces the line. When the wing cap is removed, the valve closes, the line is pierced and ready for the connection of the charging hose.

PART #	TUBING SIZE O.D.
A1	1/4", 5/16", 3/8"
A2X	1/2", 5/8"



### SOLDER TYPE LINE TAP VALVE

This easy to install "solder on" piercing valve has a unique O-ringseal, which prevents blow-by when piercing the line.



PART #	TUBING SIZE O.D.
B1-6S	3/8"
B1-8S	1/2"

PART #	TUBING SIZE O.D.
B1-10S	5/8"
B1-14S	7/8"



## REFRIGERATION ACCESSORIES

### QUIK-CAP AND VALVE CORES

Replacement valve cores are available 6 in a plastic tube.  
The cap is a QCR4 remover.

PART #	DESCRIPTION
QC4	FOR 1/4" MALE FLARE
AVC6	6 VALVE CORES IN TUBE WITH QC4R CAP



### ACCESS VALVES

Access valves are permanent access ports and are supplied with built-in valve cores and brass caps. All access valves have 1/4" male flare connections.

PART #	MODEL	SIZE / DESCRIPTION
AV2456 AV3346	STEP DOWN	1/8" I.D. HOLE, 3/16, 1/4, 5/16" STEPS 3/16" O.D. TUBE OR 1/4" & 3/8" SOLDER FITTING
AV34 AV46	SOLDER	3/16" O.D. OR 1/4" SOLDER FITTING 1/4" O.D. TUBE OR 3/8" SOLDER FITTING
AVU24 AVU45 AVU44	HALF UNION UNION	1/8" MPT OR 1/4" O.D. SOLDER 1/4" MPT OR 5/16" O.D. SOLDER 1/4" MALE FLARE x 1/4" FEMALE FLARE
AVX2 AVX3 AVX4 AVX5 AVX6	EXTENDED END	1/8" O.D. EXTENDED END TUBE 3/16" O.D. EXTENDED END TUBE 1/4" O.D. EXTENDED END TUBE 5/16" O.D. EXTENDED END TUBE 3/8" O.D. EXTENDED END TUBE
AVT4 AVT5 AVT6	SOLDER TEE	1/4" O.D. TUBE OR 3/8" SOLDER FITTING x 1/4" SAE 5/16" O.D. TUBE OR 3/8" SOLDER FITTING X 1/4" SAE 3/8" O.D. TUBE OR 1/2" SOLDER FITTING x 1/4" SAE
AVT34	UNION TEE	1/8" MPT x 1/4" MALE FLARE ON RUN
AVS4	SWIVEL NUT	1/4" SAE ACCESS FLARE WITH SWIVEL NUT
AVS44 AVS64	UNION TEE W/SWIVEL NUT	1/4" MALE x SWIVEL NUT ON RUN x 1/4" MALE BRANCH 1/4" MALE RUN x SWIVEL NUT ON BRANCH
AVW8 AVW10 AVW14	WROUGHT TEES	1/2" O.D. TUBE WITH 1/4" ACCESS ON BRANCH 5/8" O.D. TUBE WITH 1/4" ACCESS ON BRANCH 7/8" O.D. TUBE WITH 1/4" ACCESS ON BRANCH



AV2456



AV34



AVU44



AVX2



AVT-4



AVS-44



AVW-14

### PRESSURE CONTROLS

High and low pressure controls.

PART #	KLIXON #	OPEN	CLOSE
PSLP10-25	20P003FA025E010E	10 PSI	25 PSI
PSLP25-80	20P003FA080E025E	25 PSI	80 PSI
PSLP40-80	20P003FA080E040E	40 PSI	80 PSI
PSHP350-250	20P003FB350K250K	350 PSI	250 PSI
PSHP400-200	20P003FB400K200K	400 PSI	200 PSI
PSHP400-200	20P003FB450K250K	450 PSI	250 PSI





## AIR CONDITIONING ACCESSORIES

### BULLET® PIERCING VALVES

Has a metal to metal seat that creates a permanent, leakproof seal that will withstand any pressure and temperature for the life of the unit.

PART #	OD TUBE SIZE
BPV31*	1/4", 5/16", 3/8"
BPV21*	1/2", 5/8"
BPV58	5/8"
BPV34	3/4"
BPV78	7/8"



\* Adaptor sleeves furnished for multiple applications.

### SOLID STATE POWER PAKS

#### SUPER BOOST

Increases starting torque up to 500%

PART #	VOLTAGE	INCREASED TORQUE
856	115-280	390 OUNCE INCHES



#### SUPER BOOST STARTER

Increases starting torque up to 600%

PART #	VOLTAGE	INCREASED TORQUE
SPP7S	120-230	450 OUNCE INCHES



Increases starting torque up to 690%

PART #	VOLTAGE	INCREASED TORQUE
SPP8E	120-230	520 OUNCE INCHES

### Electric Element Re-String Kits

Designed to permit field repairs of damaged element sections of electric heaters.

Coil stretches to fit many applications.

Contains 2 ceramic terminal insulator sets, plated bolts, nuts, washers and element.

PART #	DESCRIPTION
DH507	3kw @ 240v
DH506	4kw @ 240v
DH500	5kw @ 240v



### TD60 SERIES DELAY ON MAKE TIMERS

#### APPLICATION

- . ON. Delay On Make
- . Multi Purpose .Delay on Make. timing.
- . Protects Air-conditioning, Refrigeration and Heat pumps from damage which may be caused by short cycling of compressor.
- . For compressor staging and stagger starting multiple units.
- . Helps to reduce power surges in multiple compressor applications.



PART #	DELAY	CONNECTIONS
TD69	6 Sec - 8 Min	1/4" Stake - Ons

### TD73 SERIES DELAY ON BREAK TIMERS

#### APPLICATION

- . OFF. Delay On Break
- . Multi Purpose .Delay on Make. timing.
- . Protects Air-conditioning, Refrigeration and Heat pumps from damage which may be caused by short cycling of compressor.
- . For compressor staging and stagger starting multiple units.
- . Helps to reduce power surges in multiple compressor applications.



PART #	DELAY	CONNECTIONS
TD73	6 Sec - 5 Min	1/4" Stake - Ons
TD73W	6 Sec - 8 Min	Wire Leads & stake-ons

### SIGHT GLASSES

PROVIDES A QUICK AND EASY INDICATION OF REFRIGERANT IN THE TUBE, AS WELL AS THE PRESENCE OF MOISTURE.

### MALE/FEMALE FLARE

PART #	SIZE / IN.	LENGTH
SG115R*	3/8 x 3/8	3-1/4"
SG206R	1/2 x 1/2	3-11/16"

### MALE/MALE FLARE

PART #	SIZE / IN.	LENGTH
SG110R*	1/4 x 1/4	3-1/8"
SG111R*	3/8 x 3/8	3-3/8"

### SOLDER TYPE

PART #	SIZE / IN.	LENGTH
SG118R*	1/4 x 1/4	7-1/4"
SG119R*	3/8 x 3/8	7-3/4"

\* UL LISTED.





## REFRIGERATION ACCESSORIES

### YELLOW JACKET® Charging Systems

#### YELLOW JACKET SERIES 41-45 MANIFOLDS

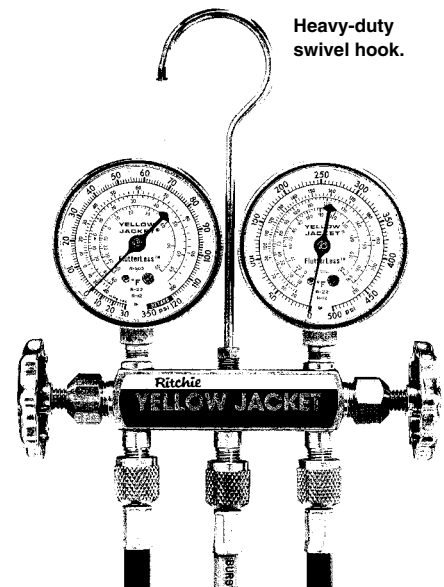
**Bold easy-to-read gauges.** Large bold numbers and colored scales are easy to read. Removable Lexan® crystals resist breakage. Standard gauge cases are color-coded red and blue. Brass and chrome are also available.

**Pretested.** Every manifold is individually pressure tested for reliability before shipping.

**Limited Lifetime Warranty** on manifold with valves. See manifold instructions for details.

**Yellow Jacket Hoses.** Most manifolds include color-coded Yellow Jacket charging hoses with 500 psi working pressure and all the other performance features you've come to expect. *Plus II* construction, different colors, lengths and fittings are available.

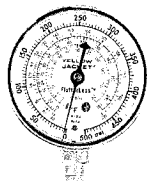
**Sliding double "O" ring pistons.** Non-rotating design reduces wear. Only 1-1/2 turns give you full flow. Long-life nylon seat is also for vacuum and 34a, R-404A, R-507, R-504A, etc.



**SERIES 41-45 MANIFOLDS - Temperature Scales R-12, R-22 and R-502 with red and blue °F\* gauges**

Description	R-22 R-410 R-502	Gauge Scales	Part # No Hose	Part# w/ Hoses
Basic unit: manifold, gauges, hook and anchors		R-12, R-22, R-502	42001	41215

#### °F (FAHRENHEIT) PRESSURE & COMPOUND GAUGES - PSI



All Yellow Jacket gauges feature bold high-visibility dials with colored temperature scales for easy reading. And with Flutterless™ technology, surge protector minimizes the needle pulsation for improved accuracy.

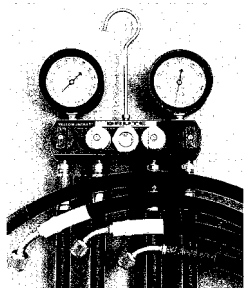
Manifold dials feature R-12, R-502 and R-22 scales. New HFC refrigerant gauges for R-134a, R-507 and R-404A are available. Compound gauges feature over pressure protection to 350 pounds. 1/8" MPT lower mount fitting. Solid brass and chrome-plated brass gauges provide additional features:

- Heavy duty phosphor bronze and stainless steel internal components for precision reading and longer life under severe use.
- Improved pulsation suppression.



UPC#	Fig.	Description
<b>CFC &amp; HCFC R-12, R-502, R-22</b>		
49101	1	Red pressure 0-500° F
49102	2	Blue pressure 30-0-120 °F
49011	1	Brass pressure 0-500 °F
<b>R-410A</b>		
49035	1	0-800 PSI

#### °F (FAHRENHEIT) BRUTE 4-VALVE SERIES with 1/2" or 3/8" vacuum ports



Large 3-1/8" liquid filled gauges available on some models. Larger, easier to read dials.

Other models available with red or blue gauges or the premium movement brass gauges. Both feature color coded protective boots.

UPC#	Vacuum Port	Hi&Lo Charge Ports	Gauge Type	Gauge Scales	Description
47312	3/8"	1/4"	R&B	R-410A	Manifold Only
46020	3/8"	1/4"	R&B	R-12,R-502,R-22	4V Manifold Only
46212	3/8"	1/4"	R&B	R-12,R-502,R-22	2V Manifold Only

#### YELLOW JACKET SLING PSYCHROMETER

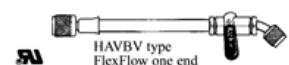


Slim, compact tool easily checks humidity. One piece unit with self-contained housing fits into your pocket.

- Calibrated and easy-to-read.

UPC #	Description
69010	Sling psychrometer
69011	Replacement wicks (5 pack)
69015	Replacement thermometer

#### 9" Flexflow™ and Low Loss Adapter Hose



UPC #	Description
26002	3/8" Heavy Duty



## REFRIGERATION ACCESSORIES

### YELLOW JACKET® Charging Hoses

#### Plus II™ 1/4" CHARGING HOSES with double barrier protection

YELLOW JACKET® Plus II Hoses have proven performance benefits of the original line, plus double barrier protection for CFC, HCFC and HFC (R-404A, R-134a, R-507, R-407C, R-410A, etc.).

Nylon permeation barrier meets UL requirements. 1/4" Plus II hose is UL 1963 recognized component for R-12, R-22, R-500, R-502, and R-134a.

Moisture barrier provides improved resistance to moisture migration which contaminates expensive refrigerant.

Other features include 4000 psi minimum burst and 800 psi maximum working pressure for a 5 to 1 safety factor.

Standard 1/4" fitting or 45° with SealRight fitting at one end.

Operating temperature -20° to 180°F.



UPC #	Description
21986	Y/B/R 3-Pak

#### PLUS II HOSE with SealRight™ low loss anti-blow back fitting

Low loss anti-blowback SealRight fitting immediately traps refrigerant in the hose when disconnected, helping meet non-venting regulations and prevent finger burns. 45° end for ease in tight areas. Gaskets resist deterioration from existing CFC's, plus new HFC refrigerants and oils. Available with SealRight fittings on both ends. New ball valve hose recommended for R-410A.



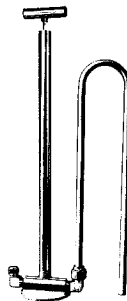
UPC #	Description
22983	36" Y/B/R 3-Pak
22985	60" Y/B/R 3-Pak
22986	70" Y/B/R 3-Pak

UPC #	Description
22060	1 - 60" Yellow Hose
22260	1 - 60" Blue Hose
22660	1 - 60" Red Hose

#### MAX-FLOW™ DELUXE OIL PUMP

Improved for added reliability and a more powerful stroke, the Max-Flow deluxe oil pump is a high capacity unit for quick charging. Pumps 3.8 ounces or 112.38 ml per stroke. Other features:

- Remove oil for recovery and conversion.
- Add oil to existing systems.
- Operating unit in reverse with adapter hose accessory removes oil from equipment quickly and efficiently.
- Will pump against 250 psi pressure.



UPC #	Description
77930	Max-Flow Deluxe oil pump
77922	24" suction hose – 1/4" fitting one end only

#### HEAVY DUTY PLUS II 1/2" and 5/8" COMBINATION CHARGING / HI-VACUUM HOSE

Heavy-use construction with a *Plus II* barrier that reduces permeation and vacuum loss.

Features:

- 500 psi working pressure; 2000 psi burst. 1/2" and 5/8" assemblies.
- Various fittings available on request.

1/4" access valve connection standard on one end CA and DA hoses.



L	"C" 1/2" fl. x 1/2" fl.
60"	#15860 C-60"

#### HEAVY DUTY PLUS II 3/8" CHARGING / HI-VACUUM HOSE

Pull a vacuum much faster with heavy-duty 3/8" hose than with a 1/4" hose. 3/8" provides freer flow.

- Permeation resistant *Plus II* barrier.
- Working pressure 500 psi; 2000 psi burst.



L	3/8" fl. sir. x 3/8" fl. str.
72"	#15672 BC-72"

#### GAS PRESSURE TEST KIT

Easier to use than a manometer, this compact kit helps you accurately set manifold pressure for natural or L.P. gas.

UPC #	Capacity
78060	0- 35" WC



#### WATER-TYPE MANOMETER

Economical plastic tube manometer helps you set manifold pressure for natural or L.P. gas. Now goes to -2" W.C. for newer systems. Strong magnet on manometer holds it in convenient upright position. Includes tubing with fitting.



UPC #	Description
78075	-2" - 15" Scale



## REFRIGERATION ACCESSORIES

### YELLOW JACKET® SUPEREVAC™ Systems YELLOW JACKET 4, 6, SUPEREVAC PUMPS

All the new design features build on the performance-proven quality features the industry already expects from the Yellow Jacket line:

- **High efficiency.** CFM rated as "free air displacement." 15 micron field rating. The lower the micron number - the better the pump.
- **Vacuum indicator gauge** at the pump intake fitting shows evacuation progress down to the green 29" to 30" range, so you'll know when to turn on electronic gauge for more precise readings.
- **Heavy duty high torque motor** assures cold weather starting.
- **Gas ballast** speeds evacuation and keeps oil cleaner.
- **Low operating temperature** to improve efficiency and vacuum.

- **Large oil reservoir** to help reduce operating temperature and better dilute corrosive contaminants.
- **Two stage rotary vane** design (at right) increases efficiency and speeds pump down to 15 microns.



### YELLOW JACKET SUPEREVAC™ PUMPS SPECIFICATIONS

DOMESTIC	Model 93600
Free air displacement	7.0 CFM
Number of stages	2 stage rotary vane
Field blankoff	15 microns
Intake	1/4" x 1/4" x 3/8"
Motor 1725rpm	1/2hp -
Internal capacitor thermal overload	Temperature rise 40° C
Voltage (single phase)	115 Volt-60 cycle
Power cord	6' - motor mounted switch
Oil capacity	28 ounces
Dimensions	16.25" L x 6" x 11.5" H
Net weight	30.8 lbs. (14 kg)

### MICRO LED UV LEAK DETECTION KITS

Use these high visibility lamps to spot leaks on all A/C systems. Individual reflectors surround each of five LEDs recessed for protection in the stainless steel head. 69790 features 3 UV and 2 blue bulbs A/C for detection at greater distances. **For greatest contrast with all fluorescent dyes, use P/N 69721 with 5 UV bulbs.**

- 110,000+ hour LEDs.
- Constant ON or momentary ON switch.
- Sealing locks out moisture.
- Long life lithium battery included.
- Aircraft aluminum body.
- Limited lifetime warranty.



#69789

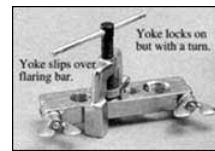
### FLARING/CUTTING KITS



Tool designed to flare on the larger sized tubing - up to 1-1/8". Flaring bars are hardened and grip tubing securely. Yoke slips over flaring bar and locks in place. Long handle and precision threaded feed screw ensure easy flaring.

UPC #	Capacity
60240	1/8" - 3/4"

### LARGE SIZE 45° FLARING TOOLS 3/4" to 1-1/8" O.D.



Tool designed to flare on the larger sized tubing - up to 1-1/8". Flaring bars are hardened and grip tubing securely. Yoke slips over flaring bar and locks in place. Long handle and precision threaded feed screw ensure easy flaring.

UPC #	Capacity
60290	3/4" - 1-1/8"

### PUNCH-TYPE SWAGING TOOL

Durable heat-treated and plated alloy steel tool expands one end of copper tubing for connecting same size tubes



UPC #	Capacity
60460	3/16" - 5/8"
60464	1/4" OD
60465	5/16" OD
60466	3/8" OD
60467	1/2" OD
60469	3/4" OD
60470	7/8" OD

### FULL RANGE HEAVY DUTY TUBE BENDERS for 1/4" to 7/8" radius

Make fast bends on almost every size of AC&R copper, brass, aluminum, steel and soft stainless steel tubing to 180°.



Line features special hardened wearing surfaces to help maintain accuracy. 60390 is a compact three-in-one bender for 1/4", 5/16" and 3/8" O.D. tubing.

Calibrated markings for bends up to 180° help you duplicate angles.

UPC #	Description
60390	3 in1 bender



## REFRIGERATION RECOVERY

### REFRIGERANT RECOVERY SYSTEM #95730

Yellow Jacket System R 60a is rated as fast or faster than all competitive units in the ARI directory or UL listings for most CFC, HCFC, and HFC refrigerants including R-410A. Features include all of the following:

- Single valve control for easy changeover from liquid to vapor to purge (patent pending)
- Constant Pressure Regulator (CPR) valve regulates refrigerant to the compressor. Eliminates the need for the technician to throttle the suction valve
- Advanced 1/2 hp, 3425 rpm oil-less compressor with precision valves manufactured in an ISO-9001 facility
- Recovers refrigerant and shuts off when unit reaches 13" of vacuum. Unit will automatically restart if system pressure rises
- Indicator signals "recovery complete"
- Quiet running with components nested to reduce vibration and noise. Oil-less compressor is inherently quiet
- Controls and gauges inset for protection and angled for easy access and viewing
- Senses back pressure from tank and shuts off automatically at 517 psi for safety
- Reusable mesh particulate filter inserts into suction port for protection. Simple cleaning eliminates replacement due to clogging
- "On-the-fly" purge with simple turn of a knob to remove residual refrigerant and help prevent cross-contamination
- High efficiency fan keeps air moving across condenser for cool running even in hot weather
- High strength HDPE case for lightweight and rugged use. Rounded corners help protect from nicks and scrapes
- Single high pressure safety switch
- Includes three-year compressor warranty
- Made in the USA

#### Specifications:

**Capabilities:** Vapor, liquid, push/pull

**Refrigerants:** 12, 22, 134a, 407C, 410A, 500, 502, and other Class III, IV and V refrigerants

**Compressor:** 1/2 hp, twin cylinder, reciprocating, oil-less

**Power Source:** 115V/60 Hz Amps: 8.0

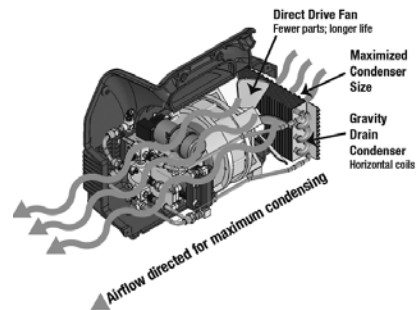
**High Pressure Shut-Off:** 517 psi – auto reset

**Operating Temperature:** 40° to 122° F (4° to 50° C)

**Approvals:** Performance tested by UL to ARI 740-98

**Weight:** 24 Lbs.

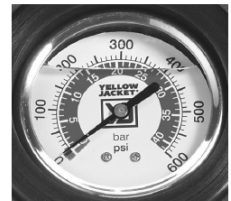
**Dimensions:** 9.0 (w) x 11.5 (h) x 13.5 (d) in.  
22.86 (w) x 29.21 (h) x 34.29 (d) cm



High efficiency fan keeps air moving across an oversized condenser for cool running even in high temperature operating conditions.

#### Built-In High Side Pressure Gauge

- 2-1/2" Liquid-filled pressure gauge shows discharge pressure during recovery and internal pressure during purge.
- 0 - 40 bar; 0 - 600 psi helps you monitor recovery.
- Durable and easy to read under any conditions.



#### Built-In Purge Circuit

- Changeover from liquid to vapor to purge
- No external equipment required
- Simple to use - move the hose and turn the selector button





# REFRIGERATION PRODUCTS AND ACCESSORIES

## SUCTION-LINE FILTER DRIERS

PART#	FITTING TYPE AND SIZE	CU. IN. DESICCANT	FILTER AREA SQ. IN.	O.A. LENGTH	SHELL DIA.
SLD8-3SV	3/8" SWEAT	8	17.25	4.31"	3"
SLD8-4SV	1/2" SWEAT	8	17.25	4.44"	3"
SSD5SC	5/8" SWEAT	8	17.27	4.69"	3"
SSD6SC	3/4" SWEAT	13-1/2	26	5-3/16"	4"
SSD7SC	7/8" SWEAT	13-1/2	26	5-13/16"	4"



## REPLACEABLE FILTER CORE DRIER

PART #	CORES	FILTER AREA	REF. FLOW CAP. IN TONS @ 2psi				FITTING CONNECTIONS INCHES	REFRIGERANT 12 & 502 PERM. INST.	REFRIGERANT 22 PERM. INST.
			12	22	500	502			
P487	1		22	29	25	18-1/2	7/8	6	10
P489	1	66	29	38	34	28	1-1/8	8	15
P967	2		38	50	43	33	7/8	6	10
P969	2	132	45	60	52	40	1-1/8	10	20
P9611	2		54	72	61	49	1-3/8	10	20
P1449	3	198	55	72	63	49	1-1/8	15	20
P14411	3		64	85	74	56	1-3/8	20	25



## REPLACEABLE CORE DRIER KITS

(SPRING RETAINERS, GASKET, RODS & SCREEN ASSY.)

PART #	SHELL #'S
K4607-01	P485-P4813
K4607-02	P967-P9613
K4067-03	P1449-P14411
K4067-04	P19211-P19213



## SIGHT-GLASS MOISTURE INDICATOR

PART#	FITTING SIZE	LENGTH / IN.
LDE-2S	1/4" SWEAT	3.05
PSG2S	1/4" SWEAT	4.88
LDE3	3/8" FLARE	3.05
LDE3S	3/8" SWEAT	4.88
PSG4MF	1/2" M/F FLARE	3.39
LDE4S	1/2" SWEAT	4.88
PSG5S	5/8" SWEAT	3.69
LDE5S	5/8" SWEAT	4.88
LDE7S	7/8" SWEAT	6.25
PSG9S	1-1/8" SWEAT	6.25
PSG10T	REPLACEMENT INDICATOR ELEMENT & "O" RING	



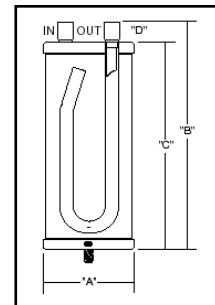


PART #	PIPE OD	LENGTH/ INCHES	DIAMETER/ INCHES
AH052S	1/4"	3-13/16	1-11/16
AH053S	3/8"	3-5/8	2-1/2
AH083S	3/8"	4-1/2	2-1/2
AH084S	1/2"	4-3/8	2-1/2
AH163S	3/8"	5-3/16	2-1/2
AH164S	1/2"	5-1/16	2-1/2
AH165S	5/8"	5-5/16	2-1/2
AH304S	1/2"	8	3
AH305S	5/8"	8	3
AH415S	5/8"	8	3-1/2
AH417S	7/8"	8	3-1/2
AH757S	7/8"	13-3/4	3-1/2
AH759S	1-1/8"	13-3/4	3-1/2

<b>PART #</b>	<b>SAE FLARE</b>	<b>LENGTH/ INCHES</b>	<b>DIAMETER/ INCHES</b>
AH032	1/4	4-1/8	1-11/16
AH052	1/4	4-3/4	2-1/2
AH053	3/8	5-3/16	2-1/2
AH083	3/8	6-1/16	2-1/2
AH162	1/4	6-15/16	2-1/2
AH163	3/8	6-3/4	2-1/2
AH164	1/2	7	2-1/2
AH305	5/8	10-3/16	3

## FOR HEAT PUMP APPLICATIONS

Part #	Dimensions				Fittings
	A	B	C	D	Inlet/Outlet
VA-56-7SRD	5"	13"	3"	1"	7/8"
VA-59-9SRD	5"	14"	3"	1"	1-1/8"



Capacities (Ratings at ARI Standard Conditions)										Selection Recommendation (Nominal Ratings-tons)													
Model Number	Filter Area Sq. In.	Water Capacity in drops						Refrigerant flow capacity @ 2psi pressure drop			Refrigeration Commercial Low Temp. Equipment			Air Conditioning			Field Replacement or Field Built-up						
		R-12 (15ppm)		R-22 (60 ppm)		R-502 (30 ppm)								OEM Self-contained									
		75°F	125°F	75°F	125°F	75°F	125°F	R-12	R-22	R-502	R-12	R-22	R-502	R-12	R-22	R-502	R-12	R-22	R-502				
032 032S	10	33.8	30.6	31.0	28.8	29.7	27.0	1.8	2.4	1.6	1/4	1/4	1/4	3/4	1	3/4	1/2	3/4	1/2				
052 052S	17	71.5	64.7	65.6	60.8	62.7	57.0	2.0	2.6	1.7	1/3	1/2	1/3	1	1-1/2	1	3/4	1	3/4				
053 053S								2.1	2.8	1.8		1		2	3	1-1/2	2-1/2	1-1/2					
								4.2	5.5	3.7													
								5.0	6.6	4.4													
082 082S	27	116.5	105.5	107.0	99.1	102.0	93.0	2.0	2.6	1.8	1/2	3/4	1/2	1	1-1/2	1	3/4	1-1/2	3/4				
083 083S								2.2	2.9	1.9	1	2	1	3	5	3	2	3	2				
084 084S								4.7	6.2	4.1													
								5.3	6.9	4.7													
								7.5	9.8	6.6													
								7.6	10.0	6.7													
162 162S	34	206.0	187.0	190.0	176.0	181.0	165.0	2.3	3.1	2.0	1	1-1/2	3/4	1-1/2	2	1-1/2	1	2	1				
163								2.5	3.4	2.2	2	3	2	4	5	4	3	4	3				
163S								5.6	7.5	4.9													
164								6.2	8.3	5.4													
164S								9.5	12.7	7.8													
165								10.3	13.7	8.9													
165S								13.3	17.7	11.6													
								13.7	18.3	11.9													
303 303S	61	416.0	377.0	383.0	355.0	365.0	333.0	5.7	7.7	5.0	3	4	2	4	5	4	3	5	3				
304								6.5	8.7	5.7	3	5	3	7-1/2	10	7-1/2	5	7-1/2	5				
304S								11.3	15.1	9.8													
305								13.1	17.5	11.4													
305S								15.5	20.7	13.5													
307S								17.1	22.8	14.9													
								21.2	28.3	18.5													
413 414	60	611.0	554.0	562.0	521.0	536.0	489.0	5.7	7.7	5.0	4	5	5	5	7-1/2	5	5	5	4				
414S								11.4	15.3	9.9				7-1/2	10	7-1/2		10	15	10	7-1/2	10	7-1/2
415								13.1	17.5	11.4													
415S								15.5	20.7	13.5													
417S								17.1	22.9	14.9													
								24.3	32.4	21.1													
756S 757S 759S	131	1072.0	972.0	986.0	915.0	940.0	858.0	20.7	27.6	18.0	12-1/2	20	1-1/2	15	25	12-1/2	12-1/2	20	12-1/2				
								25.6	34.2	22.3	15	20	12-1/2	20	30	15	15	25	15				
								28.3	37.7	24.6	20	25	15	20	30	20	20	30	20				



## REFRIGERATION PRODUCTS AND ACCESSORIES

### GENERAL PURPOSE SOLENOID VALVES

#### PILOT OPERATED SOLENOID VALVES - TYPE I

COMMON FLUIDS 0°F TO 225°F

##### APPLICATIONS:

These general service two way valves are designed for normally closed operation with a wide range of non-corrosive fluids and gases.

##### GENERAL SPECIFICATIONS:

- FORGED BRASS BODY
- MAX MOPD 150psi
- MIN MOPD 1psi
- SWP 200psig

PART #	PIPE SIZE NPT	PORT SIZE INCHES	FLOW COEFFICIENT Cv
GP200	1/4"	5/16	.98
GP300	3/8"	1/2	3.35
GP400	1/2"	1/2	3.35
GP600	3/4"	3/4	7.40
GP10A	1"	1	12.20

\*COILS SOLD SEPARATELY

#### PILOT OPERATED SOLENOID VALVES - TYPE II

COMMON FLUIDS -20°F - 240°F

##### APPLICATIONS:

These two-way normally closed valves are for common fluid applications including water (to 180°F), light oils, fuel oils and other non-corrosive liquids.

##### GENERAL SPECIFICATIONS:

- CAST BRONZE BODY
- TEFLON DIAPHRAGM
- MAX MOPD 150psi
- MIN MOPD 2psi
- SWP 200psig

PART #	PIPE SIZE NPT	PORT SIZE INCHES	FLOW COEFFICIENT Cv
GP20X	2"	2	56.00

\*COILS SOLD SEPARATELY



#### PILOT OPERATED SOLENOID VALVES - TYPE III

##### APPLICATIONS:

These two-way normally closed valves are for water (over 180°F) and steam service at temperatures to 240°F and 1 to 10 psi steam.

##### GENERAL SPECIFICATIONS:

- FORGED BRASS BODY
- TEFLON DIAPHRAGM
- MAX MOPD 150
- MIN MOPD 1
- SWP 200 psig

PART #	PIPE SIZE NPT	PORT SIZE INCHES	FLOW COEFFICIENT Cv
GP207	1/4"	5/16	.98
GP307	1/2"	1/2	3.35
GP407	1/2"	1/2	3.35
GP607	3/4"	3/4	7.40
GP1007	1"	1	12.20

\*COILS SOLD SEPARATELY

#### COILS

MODEL # / VOLTAGE
G23MM110V
G23MM208/230V
G23MM24V



## GAUGES

### Vari-Angle Thermometers

Weiss 9" Scale Vari-angle® Thermometers are the industry standard for HVAC applications. Union connection stem is offered for pipeline applications, for chilled and hot water installations with a 3-1/2" stem. Perforated 6" stem with a mounting flange is for air duct use.

UNION CONN. STEM		
CAT. NO.	RANGE	SIZE
9VS-110*	40-0-110F&C	9"
7VS-110*	40-0-110F&C	7"
7VS-240*	30-240F&C	7"

\*E35-75BS well required.



### Tri-O-meters

The Weiss Tri-O-meter is designed for use on all types of hot water heating systems. One instrument reads the water pressure, water temperature and system head in feet of H<sub>2</sub>O. Available in 2-1/2" dial with 1/4" NPT rear connection and 3-1/2" dial with 1/2" NPT lower or rear connected.

<b>Series C</b>	0-55 psi & Ft of H <sub>2</sub> O	70-250F
<b>H</b>	0-200 psi	70-320F
CAT. NO.	DESCRIPTION	
CTP25R	1/4" NPT rear	
CTP25RX	1/2" NPT rear w/1-1/4" Ext.	
CPT40RSX	1/2" NPT rear	
CTP40L	1/2" NPT lower	
HTP40L	1/2" NPT lower	



### 6" Glass Thermometers

The Weiss 6" Navay Class Thermometer is compactly designed, ruggedly constructed and has excellent readability. The red-reading mercury-in-glass tube maintains accuracy despite vibrations and shock.

UNION CONN. STEM		
CAT. NO.	RANGE	SIZE
5AS2	40-240F	6"
5SS2*	40-240F	6"

\*Straight shank



5AS2

### Hot Water Thermometers

The Weiss 6" Hot Water Thermometer is our most economical offering in industrial glass thermometers. The unit features components of non-corrosive materials and its compact design and excellent readability makes the HW Series ideal for a variety of general purpose applications. Typical applications include small pipe lines, residential and commercial boilers, solar heating systems.

UNION CONN. STEM		
CAT. NO.	RANGE	SIZE
HW5S2	40-260F	6"
HW5A2*	40-260F	6"

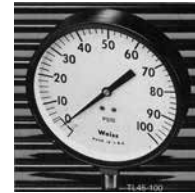
\*Angle shank



HW5S2

### Trade Line Pressure Gauges

Weiss TL Gauges are intended for general service conditions, for pressure or vacuum on air, oil, water, gas or other mediums that do not attack brass. TL Gauges are furnished in drawn steel cases, finished in black. 2" dial versions are available with 1/4" or 1/8" NPT connections. All other dial sizes are 1/4" NPT. All gauges conform with ANSI B40.1 accuracy Grade B - 2% mid scale.



2-1/2" DIAL 1/4" NPT LOWER CONN.	
CAT NO.	RANGE
TL25-015	0-15 PSI
TL25-030	0-30 PSI
TL25-060	0-60 PSI
TL25-100	0-100 PSI
TL25-100MR	LAZY HAND
TL25-160	0-160 PSI
TL25-200	0-200 PSI
TL25-200MR	LAZY HAND
TL25-300	0-300 PSI
TL25-VAC	-30-0 VAC
TL25P30-CBM	0-30 PSI

3-1/2" DIAL 1/4" NPT LOWER CONN.	
CAT NO.	RANGE
TL35-015	0-15 PSI
TL35-030	0-30 PSI
TL350-30-CBM	0-30 Ctr Btm Mt
TL35-060	0-60 PSI
TL35-100	0-100 PSI
TL35-160	0-160 PSI
TL35-300	0-300 PSI
TL35VP-30-0-30	-30-0-30 PSI

4-1/2" DIAL 1/4" NPT LOWER CONN.	
CAT. NO.	RANGE
TL45-015	0-15PSI
TL45-030	0-30 PSI
TL45-060	0-60 PSI
TL45-100	0-100 PSI
TL45-160	0-160 PSI
TL45-300	0-300 PSI
TL45-VAC	-30-0 VAC
TL45VP-30-0-30	-30-0-30 PSI



## REFRIGERANT

### R-410A

R-410A is an azeotropic mixture of HFC-32 and HFC-125, with near-zero glide allowing for both predictable performance and easy handling and recycling. Millions of R-410A air conditioners have been sold around the world, and over 25 equipment manufacturers now offer an R-410A option in their product line.



### R421A

R421A is a unique non-ozone depleting green long term replacement for R22 refrigerant. R421A does not contain hydrocarbons such as Butane or Isobutane. Replaces R22 with no change of oil and is usable in R22 compressors. R421 is also comparable to R22's performance temperature. R421A is a two component blend packaged with a proprietary lubricant which should be transferred from the cylinder in the liquid phase,



### R22

Genetron 22 is a single-component HCFC refrigerant manufactured to meet the tightest of manufacturer's specification, and can be used to service any equipment designed to use R-22. R-22 is popular in residential, commercial and industrial applications.



## Rx11 Flush

Rx11-flush is a unique solvent engineered specifically for flushing refrigeration and air conditioning systems. Based on patented HFC solvents developed by DuPont®, Rx11-flush is ozone-safe, non-toxic, and non-flammable. Used exactly like the old R-11 flushing process, its patented HFC based solvent formulation is powerful enough to flush away sludge, carbon residues, oils, acids, water and other particulate. It enhances system's service life and avoids the need for time-consuming repeat visits. Rx11-flush is ideal for system flushing after burn-outs, during retrofits and for flushing line sets for R-410A conversions.

Rx11-flush has been the industry's standard for over a decade and contractors agree, it's the best flush for R-410A retrofits and after compressor burnouts. Over one million tons of system capacity has been successfully flushed with Rx11-flush solidifying its proven track record.



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Injection Valve