



## T-SERIES TAKE-APART THERMOSTATIC EXPANSION VALVES

*T-Series take-apart valves with adjustable superheat and replaceable, interchangeable components are ideal for air conditioning, heat pump, and refrigeration applications.*

### FEATURES

- Take-apart construction for easy field service
- External superheat adjustment
- Bi-directional capability
- Stainless steel power assembly up to 18 tons
- Interchangeable replaceable cages, body flanges, power assemblies
- 1/4 to 100 Tons Capacity

### SPECIFICATIONS

Maximum Working Pressure..... 450 psig (31 bar)  
 Torque Bolts ..... 300 In. Lbs

### MODEL NUMBER NOMENCLATURE - Example: TCLC 3FC-03

SERIES	TYPE	NAVY	EQUALIZER	BLEED HOLE	CAPACITY	SYSTEM REFRIGERANT CODE	CHARGE CODE	SEQUENTIAL IDENTIFIER	CUSTOMER SPECIAL	PACK TYPE
T	CL		E		3	F	C	-03		
Take-Apart Adjustable Superheat	CL, JL, JR = Small Capacity (1/2 to 18 Tons R-22)  ER, IR, HR, MR = Large Capacity, Balanced Port (22 to 100 Tons R-22)	N= Navy  (Omit for Standard)	E = External  (Omit for Internal and Omit on Externally Equalized TCLN, TER, THR, TIR, TMR Models)	B = Bleed Hole  (Omit for No Bleed Hole)	Nominal Rating in Tons	F = R-12 H = R-22 M = R-134a N = R-407C P = R-507 R = R-502 S = R-404A	AA = Wide Range C = Medium Temp. CA = Heat Pump W(MOP) = Press. Limiting Z = Low Temp.	-01 Thru -999	G = Cust. Special  (Omit for Standard)	B1 = Bulk Pack  (Omit for Individual Pack)

### STEP 1: Select small capacity cage kit

### T-SERIES SMALL CAPACITY CAGE KITS

VALVE TYPE	NOMINAL CAPACITY - TONS							MODEL NUMBER	ITEM NUMBER
	R-12	R-134a	R-22	R-404A / R-507	R-407C	R-502	EQUALIZER		
TCL TCLC	1/4	1/4	1/2	1/4	1/2	1/4	Internal	X-22440-B1A	037034
	1/4	1/4	1/2	1/4	1/2	1/4	External	X-22440-B1B	037035
	1/2	3/4	1	1/2	1	1/2	Internal	X-22440-B2A	037036
	1/2	3/4	1	1/2	1	1/2	External	X-22440-B2B	037037
	1	1-1/5	2	1	2	1	Internal	X-22440-B3A	037038
	1	1-1/2	2	1	2	1	External	X-22440-B3B	037039
	2	2-1/2	3	2	3	2	Internal	X-22440-B4A	037040
	2	2-1/2	3	2	3	2	External	X-22440-B4B	037041
	3	3-1/2	5	3	5	3	External	X-22440-B5B	037043
	4	5-1/2	7-1/2	4-1/2	7-1/2	4-1/2	External	X-22440-B6B	037045
	6-1/2	7-1/2	10	7	10	7	External	X-22440-B7B	037047
7-1/2	9	12	8	12	8	External	X-22440-B8B	037049	
TJLE	7	9	11	7	11	7	External	XC-724-B4B	093343
	8	11	14	9	14	9	External	XC-724-B5B	038699
TJR	8	11	14	9	14	9	External	X-11873-B4B	088837
	11	13	18	12	18	12	External	X-11873-B5B	089058

Gasket strip X13455-1 (ITEM NUMBER 027579) replaces all older T-Series Gasket kits.

**STEP 2: Select Small Capacity Flange**

**T-SERIES SMALL CAPACITY FLANGES**

VALVE TYPE	CONFIGURATION	INLET CONNECTION	OUTLET CONNECTION	MODEL NUMBER	ITEM NUMBER
TCL,TCLE	Angle	3/8" SAE	1/2" SAE	C-500-4	056932
TCL,TCLE	Angle	3/8" SAE	5/8" SAE	C-500-5	057153
TCL,TCLE	Angle	1/2" SAE	5/8" SAE	C-500-6	056294
TCL,TCLE	Angle	3/8" ODF	1/2" ODF	C-501-4	065527
TCL,TCLE	Angle	3/8" ODF	5/8" ODF	C-501-5	065748
TCL,TCLE	Angle	1/2" ODF	5/8" ODF	C-501-7	065861
TCL,TCLE	Angle	5/8" ODF or 7/8" ODM	7/8" ODF or 1-1/8" ODM	A576	027764
TCL,TCLE	Straight Thru	3/8" SAE	1/2" SAE	X-6669-4	051176
TCL,TCLE	Straight Thru	3/8" SAE	5/8" SAE	X-6669-1	050563
TCL,TCLE	Straight Thru	1/2" SAE	1/2" SAE	X-6669-5	083378
TCL,TCLE	Straight Thru	1/2" SAE	5/8" SAE	X-6669-2	050842
TCL,TCLE	Straight Thru	3/8" ODF	1/2" ODF	9761-5	027769
TCL,TCLE	Straight Thru	3/8" ODF	5/8" ODF	9761-3	027771
TCL,TCLE	Straight Thru	1/2" ODF	1/2" ODF	9761-9	027766
TCL,TCLE	Straight Thru	1/2" ODF	5/8" ODF	9761-4	027268
TCL,TCLE	Straight Thru	1/2" ODF	7/8" ODF	9761-2	027770
TCL,TCLE	Straight Thru	5/8" ODF	5/8" ODF	X-6346-16	044733
TCL,TCLE	Straight Thru	5/8" ODF	7/8" ODF	X-6346-17	044846
TCL,TCLE	Straight Thru	5/8" ODF	1-1/8" ODF	X-6346-18	094038
TCL,TCLE	Straight Thru	7/8" ODF	1-1/8" ODF	X-6346-34	071757
TJLE	Angle	5/8" ODF or 7/8" ODM	7/8" ODF or 1-1/8" ODM	B504	044984
TJLE	Straight Thru	5/8" ODF	1-1/8" ODF	X-6347-2	094289
TJLE	Straight Thru	7/8" ODF	1-1/8" ODF	X-6347-6	057210
TJLE	Straight Thru	7/8" ODF	1-3/8" ODF	X-6347-7	057323
TJR	Angle	7/8" ODF or 1-1/8" ODM	7/8" ODF or 1-1/8" ODM	10331	029411
TJR	Straight Thru	7/8" ODF or 1-1/8" ODM	7/8" ODF or 1-1/8" ODM	10332	032988

**STEP 3: Select Power Assembly**

**POWER ASSEMBLY MODEL NOMENCLATURE - Example: XB-1019FC-1A**

PRINT REFERENCE	SYSTEM REFRIGERANT CODE	CHARGE CODE	CAPILLARY TUBE LENGTH CODE	EQUALIZER
XB-1019	F	C	1	A
XB-1019 = Drawing Number	F = R-12 H = R-22 M = R-134a N = R-407C P = R-507 R = R-502 S = R-404A	A = Medium & Low Temp. AA = Wide Range C = Medium Temp. CA = Heat Pump W(MOP) = Press. Limiting Z = Low Temp.	1 = 5 Ft. 2 = 10 Ft. 3 = 15 Ft.	A = Internal B = External

**T-SERIES SMALL POWER ASSEMBLIES**

VALVE TYPE	SYSTEM REFRIGERANT CODE	CHARGE CODE	CAP LENGTH	EQUALIZER	MODEL NUMBER	ITEM NUMBER
TCL, TCLE, TJLE, TJR	F (R-12)	W15 (MOP)	5 Ft.	External	XB-1019FW15-1B	077063
	F (R-12)	W35 (MOP)	5 Ft.	External	XB-1019FW35-1B	079346
	F (R-12)	W55 (MOP)	10 Ft.	External	XB-1019FW55-2B	050981
	F (R-12)	W55 (MOP)	5 Ft.	External	XB-1019FW55-1B	057432
	F (R-12)	C (Med. Temp.)	10 Ft.	Internal	XB-1019FC-2A	032374
	F (R-12)	C (Med. Temp.)	10 Ft.	External	XB-1019FC-2B	052954
	F (R-12)	C (Med. Temp.)	15 Ft.	External	XB-1019FC-3B	058569
	F (R-12)	C (Med. Temp.)	5 Ft.	Internal	XB-1019FC-1A	052951
	F (R-12)	C (Med. Temp.)	5 Ft.	External	XB-1019FC-1B	049881
	H (R-22)	W100 (MOP)	10 Ft.	External	XB-1019HW100-2B	062658
	H (R-22)	W100 (MOP)	5 Ft.	External	XB-1019HW100-1B	062437

**T-SERIES SMALL POWER ASSEMBLIES (CONTINUED)**

VALVE TYPE	SYSTEM REFRIGERANT CODE	CHARGE CODE	CAP LENGTH	EQUALIZER	MODEL NUMBER	ITEM NUMBER
TCL, TCLE, TJLE, TJR	H (R-22)	W35 (MOP)	5 Ft.	External	XB-1019HW35-1B	089975
	H (R-22)	W55 (MOP)	5 Ft.	External	XB-1019HW55-1B	039152
	H (R-22)	W65 (MOP)	5 Ft.	External	XB-1019HW65-1B	089445
	H (R-22)	CA (Heat Pump)	5 Ft.	External	XB-1019HCA-1B	056039
	H (R-22)	Z (Low Temp.)	10 Ft.	External	XB-1019HZ-2B	054105
	H (R-22)	Z (Low Temp.)	5 Ft.	External	XB-1019HZ-1B	040568
	H (R-22)	C (Med. Temp.)	10 Ft.	External	XB-1019HC-2B	054390
	H (R-22)	C (Med. Temp.)	20 Ft.	External	XB-1019HW-4B	055703
	H (R-22)	C (Med. Temp.)	5 Ft.	Internal	XB-1019HC-1A	062078
	H (R-22)	C (Med. Temp.)	5 Ft.	External	XB-1019HC-1B	053416
	M (R-134a)	W55 (MOP)	5 Ft.	External	XB-1019MW55-1B	057370
	M (R-134a)	Z (Low Temp.)	5 Ft.	External	XB-1019MZ-1B	061946
	M (R-134a)	C (Med. Temp.)	10 Ft.	External	XB-1019MC-2B	059548
	M (R-134a)	C (Med. Temp.)	5 Ft.	External	XB-1019MC-1B	057878
	N (R-407C)	W100 (MOP)	5 Ft.	External	XB-1019NW100-1B	063069
	N (R-407C)	C (Med. Temp.)	5 Ft.	External	XB-1019NC-1B	064837
	P (R-507)	W40 (MOP)	5 Ft.	External	XB-1019PW40-1B	064200
	P (R-507)	Z (Low Temp.)	5 Ft.	External	XB-1019PZ-1B	061951
	P (R-507)	C (Med. Temp.)	5 Ft.	External	XB-1019PC-1B	061949
	R (R-502)	W15 (MOP)	5 Ft.	External	XB-1019RW15-1B	070346
	R (R-502)	W35 (MOP)	5 Ft.	External	XB-1019RW35-1B	063644
	R (R-502)	W45 (MOP)	10 Ft.	External	XB-1019RW45-2B	055704
	R (R-502)	W45 (MOP)	5 Ft.	External	XB-1019RW45-1B	055881
	R (R-502)	W65 (MOP)	5 Ft.	External	XB-1019RW65-1B	063114
	R (R-502)	Z (Low Temp.)	10 Ft.	External	XB-1019RZ-2B	047358
	R (R-502)	Z (Low Temp.)	5 Ft.	External	XB-1019RZ-1B	046474
	R (R-502)	C (Med. Temp.)	10 Ft.	External	XB-1019RC-2B	054415
	R (R-502)	C (Med. Temp.)	5 Ft.	External	XB-1019RC-1B	052955
	S (R-404A)	W40 (MOP)	5 Ft.	External	XB-1019SW40-1B	059130
	S (R-404A)	W65 (MOP)	5 Ft.	External	XB-1019SW65-1B	063541
	S (R-404A)	Z (Low Temp.)	10 Ft.	External	XB-1019SZ-2B	061948
	S (R-404A)	C (Med. Temp.)	5 Ft.	External	XB-1019SC-1B	059189

**STEP 1: Select Large Capacity Cage Kit**

**T-SERIES LARGE CAPACITY CAGE KITS**

VALVE TYPE	NOMINAL CAPACITY - TONS						EQUALIZER	MODEL NUMBER	ITEM NUMBER
	R-12	R-134a	R-22	R-404A / R-507	R-407C	R-502			
TER	13	16	22	14	22	14	External	X-9117-B6B	077896
TER	15	19	26	16	26	16	External	X-9117-B7B	078117
TER	20	25	35	21	35	21	External	X-9117-B8B	071155
TER	25	31	45	27	45	27	External	X-9117-B9B	029429
TIR	35	45	55	37	55	37	External	X-9166-B10B	070738
THR	35	45	55	37	55	37	External	X-9144-B10B	071238
THR	45	55	75	48	70	48	External	X-9144-B11B	020846
THR	55	68	85	60	85	60	External	X-9144-B13B	021067
TMR	55	68	100	60	100	—	External	X-9144-B14B	065123



Capacity  
Tables (Tons)

# T-SERIES

# THERMOSTATIC EXPANSION VALVES

## STEP 2: Select Large Capacity Flange

### T-SERIES LARGE CAPACITY FLANGES

VALVE TYPE	CONFIGURATION	INLET CONNECTION	OUTLET CONNECTION	MODEL NUMBER	ITEM NUMBER
TER	Angle	7/8" ODF or 1-1/8" ODM	7/8" ODF or 1-1/8" ODM	9153	027919
TER	Straight Thru	7/8" ODF or 1-1/8" ODM	7/8" ODF or 1-1/8" ODM	9152	027918
TIR	Angle	7/8" ODF or 1-1/8" ODM	7/8" ODF or 1-1/8" ODM	9151	027926
TIR	Straight Thru	7/8" ODF or 1-1/8" ODM	7/8" ODF or 1-1/8" ODM	9150	028849
THR	Angle	1-1/8" ODM	1-1/8" ODM	9149	028030
THR	Straight Thru	1-1/8" ODM	1-1/8" ODM	9148	028032
TMR	Angle	1-1/8" ODM	1-1/8" ODM	9149-1	065124
TMR	Straight Thru	1-1/8" ODM	1-1/8" ODM	9148-1	065125

## STEP 3: Select Power Assembly

### POWER ASSEMBLY MODEL NOMENCLATURE - Example: XB-1019FC-1A

PRINT REFERENCE	SYSTEM REFRIGERANT CODE	CHARGE CODE	CAPILLARY TUBE LENGTH CODE	EQUALIZER
XB-1019	F	C	1	A
XB-1019 = Drawing Number	F = R-12 H = R-22 M = R-134a N = R-407C P = R-507 R = R-502 S = R-404A	C = Medium Temp. CA = Heat Pump W(MOP) = Press. Limiting Z = Low Temp.	1 = 5 Ft. 2 = 10 Ft. 3 = 15 Ft.	A = Internal B = External

### T-SERIES LARGE POWER ASSEMBLIES

VALVE TYPE	SYSTEM REFRIGERANT CODE	CHARGE CODE	CAPILLARY TUBE	EQUALIZER	MODEL NUMBER	ITEM NUMBER
TER, TIR, THR, TMR	F (R-12)	W55 (MOP)	10 Ft.	External	XC-726FW55-2B	035000
	F (R-12)	C (Med. Temp.)	10 Ft.	External	XC-726FC-2B	052957
	H (R-22)	W100 (MOP)	10 Ft.	External	XC-726HW100-2B	036750
	H (R-22)	W35 (MOP)	10 Ft.	External	XC-726HW35-2B	024511
	H (R-22)	W65 (MOP)	10 Ft.	External	XC-726HW65-2B	025011
	H (R-22)	CA (Heat Pump)	10Ft.	External	XC-726HCA-2B	059333
	H (R-22)	Z (Low Temp.)	10 Ft.	External	XC-726HZ-2B	040569
	H (R-22)	C (Med. Temp.)	10 Ft.	External	XC-726HC-2B	056421
	M (R-134a)	M55 (MOP)	10 Ft.	External	XC-726MW55-2B	057372
	M (R-134a)	Z (Low Temp.)	10 Ft.	External	XC-726MZ-2B	063075
	M (R-134a)	C (Med. Temp.)	10 Ft.	External	XC-726MC-2B	057235
	R (R-502)	W15 (MOP)	10 Ft.	External	XC-726RW15-2B	023351
	R (R-502)	W35 (MOP)	10 Ft.	External	XC-726RW35-2B	070866
	R (R-502)	W65 (MOP)	10 Ft.	External	XC-726RW65-2B	071421
	R (R-502)	Z (Low Temp.)	10 Ft.	External	XC-726RZ-2B	046692
	R (R-502)	C (Med. Temp.)	10 Ft.	External	XC-726RC-2B	052958
	S (R-404A)	W40 (MOP)	10 Ft.	External	XC-726SW40-2B	063127
	S (R-404A)	W65 (MOP)	10 Ft.	External	XC-726SW65-2B	061692
S (R-404A)	Z (Low Temp.)	10 Ft.	External	XC-726SZ-2B	063974	
S (R-404A)	C (Med. Temp.)	10 Ft.	External	XC-726SC-2B	062303	
TCLE, TJLE, TJRE	R-12	Rapid Response	5 Ft.	External	X-8019FWS-1B	031654
	R-22	Rapid Response	10 Ft.	External	X-8019HWS-2B	055873
	R-22	Rapid Response	5 Ft.	External	X-8019HWS-1B	055652
	R-502	Rapid Response	10 Ft.	External	X-8019RWS-2B	042426
	R-502	Rapid Response	5 Ft.	Internal	X-8019RWS-1A	032131

**NOTE:** Nominal capacities shown here are based on 40°F evaporator temperature and 100°F vapor-free liquid refrigerant entering the valve. R-12 and R-134a rated at 60 PSID. All other refrigerants rated at 100 PSID.

# THERMOSTATIC EXPANSION VALVES

# T-SERIES

## T-SERIES THERMOSTATIC EXPANSION VALVES (Less Flange)

SYSTEM REFRIGERANT CODE	CAPACITY (NOMINAL TONNAGE)	CHARGE CODE	EQUALIZER	CAP LENGTH	MODEL NUMBER	ITEM NUMBER
F (R-12)	1/2	C (Med. Temp.)	External	5 Ft.	TCLE 1/2FC-01	054413
	1	C (Med. Temp.)	External	5 Ft.	TCLE 1FC-01	052940
	2	C (Med. Temp.)	External	5 Ft.	TCLE 2FC-03	052941
	3	C (Med. Temp.)	External	5 Ft.	TCLE 3FC-03	052942
	4	C (Med. Temp.)	External	5 Ft.	TCLE 4FC-03	052943
	6-1/2	C (Med. Temp.)	External	5 Ft.	TCLE 6-1/2FC-02	052944
	7-1/2	C (Med. Temp.)	External	5 Ft.	TCLE 7-1/2FC-03	052945
	8	C (Med. Temp.)	External	5 Ft.	TJLE 8FC-01	055104
	11	C (Med. Temp.)	External	5 Ft.	TJRE 11FC-01	055105
	20	C (Med. Temp.)	External	10 Ft.	TER 20FC-01	055109
25	C (Med. Temp.)	External	10 Ft.	TER 25FC-01	055111	
H (R-22)	1	C (Med. Temp.)	External	5 Ft.	TCLE 1HC-01	062884
	2	C (Med. Temp.)	External	5 Ft.	TCLE 2HC-03	061724
	3	C (Med. Temp.)	External	5 Ft.	TCLE 3HC-05	054395
	3	W100 (MOP)	External	5 Ft.	TCLE 3HW100-05	089943
	5	C (Med. Temp.)	External	5 Ft.	TCLE 5HC-02	054399
	7-1/2	C (Med. Temp.)	External	5 Ft.	TCLE 7-1/2HC-02	054401
	7-1/2	W100 (MOP)	External	5 Ft.	TCLE 7-1/2HW100-08	054079
	10	C (Med. Temp.)	External	5 Ft.	TCLE 10HC-03	054404
	10	W 100 (MOP)	External	5 Ft.	TCLE 10HW100-07	059076
	11	C (Med. Temp.)	External	5 Ft.	TJLE 11HC-01	060855
	12	C (Med. Temp.)	External	5 Ft.	TCLE 12HC-05	060854
	14	C (Med. Temp.)	External	5 Ft.	TJLE 14HC-04	060856
	14	C (Med. Temp.)	External	5 Ft.	TJRE 14HC-02	060857
	18	C (Med. Temp.)	External	5 Ft.	TJRE 18HC-05	060858
	22	C (Med. Temp.)	External	10 Ft.	TER 22HC-04	061673
	22	W100 MOP	External	10 Ft.	TER 22HW100-04	058582
	26	C (Med. Temp.)	External	10 Ft.	TER 26HC-05	061674
	35	C (Med. Temp.)	External	10 Ft.	TER 35HC-04	061675
	35	W 100 (MOP)	External	10 Ft.	TER 35HW100-02	058038
	45	C (Med. Temp.)	External	10 Ft.	TER 45HC-05	061676
75	C (Med. Temp.)	External	10 Ft.	THR 75HC-04	064961	
100	C (Med. Temp.)	External	10 Ft.	THR 100HC-03	062036	
100	W 100 (MOP)	External	10 Ft.	THR 100HW100-07	052912	
R (R-502)	2	C (Med. Temp.)	External	5 Ft.	TCLE 2RC-01	061215
	3	C (Med. Temp.)	External	5 Ft.	TCLE 3RC-01	055501
	8	C (Med. Temp.)	External	5 Ft.	TCLE 8RC-01	063501
	14	C (Med. Temp.)	External	10 Ft.	TER 14RC-01	060788

## T-SERIES PARTS LIST

VALVE TYPE	DESCRIPTION	MODEL NUMBER	ITEM NUMBER
TLE	Packing Nut Wrench	E-642	039862
LCL, TLE, ZZ	Take-Apart Gasket Set	X-13455-1	027579
T-Series	Superheat Plug	X-28124-1	058336
TCL, TLE	Replacement Capscrews, 10 Pcs of Screw # PS-286-5	KT-30021	054569
TJR, TER	Replacement Capscrews 10 Pcs of Screw # PS-259	KT-30023	054571
TJLE, ANG	Replacement Capscrews 10 Pcs of Screw # PS-514-5	KT-30025	054573
TJLE	Replacement Capscrews 10 Pcs of Screw # PS-517-5	KT-30026	054574
TMR	Straight Thru	9148-1	065125