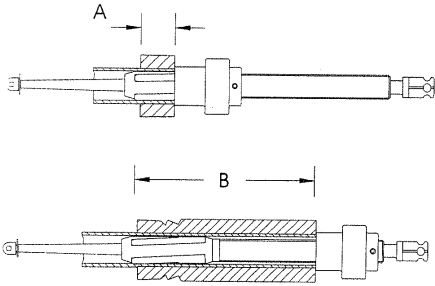


R1200 Series Condenser and Heat Exchanger Tube Expander

A-Tube Sheet Minimum
B-Tube Sheet Maximum



FOR TUBES WITH INTERNAL DIAMETER
FROM 0.334" (8.4 mm) TO 1.43" (36.3 mm)

TUBE EXPANDERS FITTED WITH ROLLER LENGTH		FOR TUBE SHEET ADJUSTABLE RANGE	
		MINIMUM	MAXIMUM
		A	B
1-1/2" (38.1 mm)	STD REACH	1-1/2" (38.1 mm)	6" (152.4 mm)
	"A" REACH	1-1/2" (38.1 mm)	8" (203.2 mm)
	"B" REACH	1-1/2" (38.1 mm)	10" (253.8 mm)
	"C" REACH	1-1/2" (38.1 mm)	12" (304.6 mm)
2-1/4" (57.1 mm)	STD REACH	2-1/4" (57.1 mm)	6-3/4" (171.4mm)
	"A" REACH	2-1/4" (57.1mm)	8-3/4" (222.1mm)
	"B" REACH	2-1/4" (57.1mm)	10-3/4" (272.8mm)
	"C" REACH	2-1/4" (57.1mm)	12-3/4" (323.6mm)

Tube O.D. in. mm	Tube Thickness bwg. in. mm.	Tube I.D. in. mm.	Minimum I.D. Tool Enters in. mm.	Maximum Expansion of Tool in. mm.	Expander with 1-1/2" (38.10 mm) Long Rollers			Expander with 2-1/4" (57.15 mm) Long Rollers			SQ. DR.
					Complete Tool No.	Mandrel No.	Rollers Set No.	Complete Tool No.	Mandrel No.	Rollers Set No.	
1/2"	14 .083 (2.10)	.334 (8.4)	.324 (8.2)	.374 (9.5)	R1197	1197	797				in 3/8
	15 .072 (1.82)	.356 (9.0)	.348 (8.8)	.398 (10.1)	R1199	1199	R-1				
	16 .065 (1.65)	.370 (9.4)	.360 (9.1)	.410 (10.4)	R1201	M-51	R-1				
12.70	17 .058 (1.47)	.384 (9.7)	.374 (9.5)	.424 (10.7)	R1203	M-51	R-2				
	18 .049 (1.24)	.402 (10.2)	.392 (9.9)	.447 (11.3)	R1205	M-52	R-3				
	20 .035 (0.88)	.430 (10.9)	.406 (10.3)	.461 (11.7)	R1205 S	M-53	R-3				
5/8"	12 .109 (2.76)	.407 (10.3)	.392 (9.9)	.447 (11.3)	R1205	M-52	R-3				
	13 .095 (2.41)	.435 (11.0)	.425 (10.8)	.480 (12.1)	R1207	M-53	R-4				
	14 .083 (2.10)	.459 (11.6)	.449 (11.4)	.509 (12.9)	R1209	M-54	R-4	R1210	M-54	R-4-A	
15.88	15 .072 (1.82)	.481 (12.2)	.471 (11.9)	.536 (13.6)	R1211	M-55	R-5	R1212	M-55	R-5-A	
	16 .065 (1.65)	.495 (12.5)	.485 (12.3)	.550 (13.9)	R1213	M-55	R-6	R1214	M-55	R-6-A	
	17 .058 (1.47)	.509 (12.9)	.499 (12.6)	.564 (14.3)	R1215	M-56	R-6	R1216	M-56	R-6-A	
	18 .049 (1.24)	.527 (13.3)	.517 (13.1)	.572 (14.5)	R1217	M-57	R-7	R1218	M-57	R-7-A	
	19 .042 (1.06)	.541 (13.7)	.522 (13.2)	.582 (14.7)	R1219	M-56	R-7	R1220	M-56	R-7-A	
	20 .035 (0.88)	.555 (14.1)	.536 (13.6)	.596 (15.1)	R1219 S	M-58	R-7	R1220 S	M-58	R-7-A	
3/4"	21 .032 (0.81)	.561 (14.2)	.536 (13.6)	.596 (15.1)	R1219 S	M-58	R-7	R1220 S	M-58	R-7-A	
	22 .028 (0.71)	.569 (14.4)	.536 (13.6)	.596 (15.1)	R1219 S	M-58	R-7	R1220 S	M-58	R-7-A	
	10 .134 (3.40)	.482 (12.2)	.471 (11.9)	.536 (13.6)	R1211	M-55	R-5	R1212	M-55	R-5-A	
	11 .120 (3.04)	.510 (12.9)	.499 (12.6)	.564 (14.3)	R1215	M-56	R-6	R1216	M-56	R-6-A	
	12 .109 (2.76)	.532 (13.5)	.522 (13.2)	.582 (14.7)	R1219	M-56	R-7	R1220	M-56	R-7-A	
	13 .095 (2.41)	.560 (14.2)	.550 (13.9)	.615 (15.6)	R1221	M-58	R-8	R1222	M-58	R-8-A	
	14 .083 (2.10)	.584 (14.8)	.574 (14.5)	.639 (16.2)	R1223	M-58	R-9	R1224	M-58	R-9-A	
	15 .072 (1.82)	.606 (15.3)	.596 (15.1)	.661 (16.7)	R1225	M-58	R-10	R1226	M-58	R-10-A	
	16 .065 (1.65)	.620 (15.7)	.605 (15.3)	.685 (17.4)	R1227	M-59	R-10	R1228	M-59	R-10-A	
	17 .058 (1.47)	.634 (16.1)	.619 (15.7)	.699 (17.7)	R1229	M-59	R-11	R1230	M-59	R-11-A	
18.05	18 .049 (1.24)	.652 (16.5)	.619 (15.7)	.699 (17.7)	R1229	M-59	R-11	R1230	M-59	R-11-A	
	19 .042 (1.06)	.666 (16.9)	.642 (16.3)	.722 (18.3)	R1231	M-59	R-12	R1232	M-59	R-12-A	
	20 .035 (0.88)	.680 (17.2)	.642 (16.3)	.722 (18.3)	R1231	M-59	R-12	R1232	M-59	R-12-A	
	21 .032 (0.81)	.686 (17.4)	.642 (16.3)	.722 (18.3)	R1231	M-59	R-12	R1232	M-59	R-12-A	
	22 .028 (0.71)	.694 (17.6)	.642 (16.3)	.722 (18.3)	R1231	M-59	R-12	R1232	M-59	R-12-A	
7/8"	10 .134 (3.40)	.607 (15.4)	.596 (15.1)	.661 (16.7)	R1225	M-58	R-10	R1226	M-58	R-10-A	
	11 .120 (3.04)	.635 (16.1)	.619 (15.7)	.699 (17.7)	R1229	M-59	R-11	R1230	M-59	R-11-A	
	12 .109 (2.76)	.657 (16.6)	.642 (16.3)	.722 (18.3)	R1231	M-59	R-12	R1232	M-59	R-12-A	
22.22	13 .095 (2.41)	.685 (17.4)	.670 (17.0)	.750 (19.0)	R1233	M-60	R-13	R1234	M-60	R-13-A	
	14 .083 (2.10)	.709 (18.0)	.685 (17.4)	.774 (19.6)	R1235	M-61	R-14	R1236	M-61	R-14-A	
	15 .072 (1.82)	.731 (18.5)	.712 (18.0)	.801 (20.3)	R1237	M-61	R-15	R1238	M-61	R-15-A	

	16	.065 (1.65)	.745 (18.9)	.726 (18.4)	.815 (20.7)	R1239	M-62	R-15	R1240	M-62	R-15-A	
	17	.058 (1.47)	.759 (19.2)	.740 (18.8)	.829 (21.0)	R1243	M-62	R-16	R1244	M-62	R-16-A	
	18	.049 (1.24)	.777 (19.7)	.740 (18.8)	.829 (21.0)	R1243	M-62	R-16	R1244	M-62	R-16-A	
1"	8	.165 (4.19)	.670 (17.0)	.655 (16.6)	.735 (18.6)	R1241	M-59	R-13	R1242	M-59	R-13-A	
	9	.148 (3.75)	.704 (17.8)	.685 (17.4)	.774 (19.6)	R1235	M-61	R-14	R1236	M-61	R-14-A	
	10	.134 (3.40)	.732 (18.5)	.712 (18.0)	.801 (20.3)	R1237	M-61	R-15	R1238	M-61	R-15-A	
	11	.120 (3.04)	.760 (19.3)	.740 (18.8)	.829 (21.0)	R1243	M-62	R-16	R1244	M-62	R-16-A	
	12	.109 (2.76)	.782 (19.8)	.763 (19.3)	.852 (21.6)	R1245	M-62	R-17	R1246	M-62	R-17-A	
	13	.095 (2.41)	.810 (20.5)	.791 (20.0)	.880 (22.3)	R1247	M-62	R-18	R1248	M-62	R-18-A	
	14	.083 (2.10)	.834(21.1)	.810 (20.5)	.909 (23.0)	R1249	M-63	R-18	R1250	M-63	R-18-A	
	15	.072 (1.82)	.856 (21.7)	.837 (21.2)	.936 (23.7)	R1251	M-63	R-19	R1252	M-63	R-19-A	
	16	.065 (1.65)	.870 (22.1)	.837 (21.2)	.936 (23.7)	R1251	M-63	R-19	R1252	M-63	R-19-A	
	17	.058 (1.47)	.884 (22.4)	.865 (21.9)	.964 (24.4)	R1255	M-63	R-21	R1256	M-63	R-21-A	
18	.049 (1.24)	.902 (22.9)	.865 (21.9)	.964 (24.4)	R1255	M-63	R-21	R1256	M-63	R-21-A		
19	.042 (1.06)	.916 (23.2)	.865 (21.9)	.964 (24.4)	R1255	M-63	R-21	R1256	M-63	R-21-A		
20	.035 (0.88)	.930 (23.6)	.865 (21.9)	.964 (24.4)	R1255	M-63	R-21	R1256	M-63	R-21-A		
25.40	8	.165 (4.19)	.795 (20.1)	.776 (19.7)	.875 (22.2)	R1253	M-63	R-20	R1254	M-63	R-20-A	
	9	.148 (3.75)	.829 (21.0)	.810 (20.5)	.909 (23.0)	R1249	M-63	R-18	R1250	M-63	R-18-A	
	10	.134 (3.40)	.857 (21.7)	.837 (21.2)	.936 (23.7)	R1251	M-63	R-19	R1252	M-63	R-19-A	
	11	.120 (3.04)	.885 (22.4)	.865 (21.9)	.964 (24.4)	R1255	M-63	R-21	R1256	M-63	R-21-A	
	12	.109 (2.76)	.907 (23.0)	.883 (22.4)	.982 (24.9)	R1257	M-64	R-21	R1258	M-64	R-21-A	
	13	.095 (2.41)	.935 (23.7)	.916 (23.2)	1.015(25.7)	R1259	M-64	R-22	R1260	M-64	R-22-A	
	14	.083 (2.10)	.959 (24.3)	.935 (23.7)	1.044 (26.5)	R1261	M-65	R-23	R1262	M-65	R-23-A	
	15	.072 (1.82)	.981 (24.9)	.962 (24.4)	1.071 (27.2)	R1263	M-65	R-24	R1264	M-65	R-24-A	
	16	.065 (1.65)	.995 (25.2)	.962 (24.4)	1.071 (27.2)	R1263	M-65	R-24	R1264	M-65	R-24-A	
	17	.058 (1.47)	1.010 (25.6)	.990 (25.1)	1.099 (27.9)	R1267	M-66	R-26	R1268	M-66	R-26-A	
18	.049 (1.24)	1.027 (26.0)	.990 (25.1)	1.099 (27.9)	R1267	M-66	R-26	R1268	M-66	R-26-A		
1-1/8"	8	.165 (4.19)	.920 (23.3)	.901 (22.8)	1.010 (25.6)	R1265	M-65	R-25	R1266	M-65	R-25-A	
	9	.148 (3.75)	.954 (24.2)	.935 (23.7)	1.044 (26.5)	R1261	M-65	R-23	R1262	M-65	R-23-A	
	10	.134 (3.40)	.982 (24.9)	.962 (24.4)	1.071 (27.2)	R1263	M-65	R-24	R1264	M-65	R-24-A	
	11	.120 (3.04)	1.010 (25.6)	.990 (25.1)	1.099 (27.9)	R1267	M-66	R-26	R1268	M-66	R-26-A	
	12	.109 (2.76)	1.032 (26.2)	1.013 (25.7)	1.122 (28.5)	R1269	M-66	R-27	R1270	M-66	R-27-A	
	13	.095 (2.41)	1.060 (26.9)	1.039 (26.4)	1.150 (29.2)	R1271	M-67	R-28	R1272	M-67	R-28-A	
	14	.083 (2.10)	1.084 (27.5)	1.060 (26.9)	1.169 (29.6)	R1273	M-67	R-29	R1274	M-67	R-29-A	
	15	.072 (1.82)	1.106 (28.0)	1.087 (27.6)	1.196 (30.3)	R1275	M-67	R-30	R1276	M-67	R-30-A	
	16	.065 (1.65)	1.120 (28.4)	1.087 (27.6)	1.196 (30.3)	R1275	M-67	R-30	R1276	M-67	R-30-A	
	17	.058 (1.47)	1.134 (28.8)	1.115 (28.3)	1.224 (31.0)	R1279	M-68	R-30	R1280	M-68	R-30-A	
18	.049 (1.24)	1.152 (29.2)	1.115 (28.3)	1.224 (31.0)	R1279	M-68	R-30	R1280	M-68	R-30-A		
1-1/4"	8	.165 (4.19)	1.045 (26.5)	1.026 (26.0)	1.135 (28.8)	R1277	M-67	R-31	R1278	M-67	R-31-A	
	9	.148 (3.75)	1.079 (27.4)	1.060 (26.9)	1.169 (29.6)	R1273	M-67	R-29	R1274	M-67	R-29-A	
	10	.134 (3.40)	1.107 (28.1)	1.087 (27.6)	1.196 (30.3)	R1275	M-67	R-30	R1276	M-67	R-30-A	
	11	.120 (3.04)	1.135 (28.8)	1.115 (28.3)	1.224 (31.0)	R1279	M-68	R-30	R1280	M-68	R-30-A	
	12	.109 (2.76)	1.157 (29.3)	1.133 (28.7)	1.242 (31.5)	R1281	M-68	R-32	R1282	M-68	R-32-A	
	13	.095 (2.41)	1.185 (30.1)	1.160 (29.4)	1.275 (32.3)	R1283	M-69	R-33	R1284	M-69	R-33-A	
	14	.083 (2.10)	1.209 (30.7)	1.179 (29.9)	1.294 (32.8)	R1285	M-70	R-34	R1286	M-70	R-34-A	
	15	.072 (1.82)	1.231 (31.2)	1.206 (30.6)	1.321 (33.5)	R1287	M-70	R-35	R1288	M-70	R-35-A	
	16	.065 (1.65)	1.245 (31.6)	1.206 (30.6)	1.321 (33.5)	R1287	M-70	R-35	R1288	M-70	R-35-A	
	17	.058 (1.47)	1.170 (29.7)	1.145 (29.0)	1.260 (32.0)	R1289	M-69	R-34	R1290	M-69	R-34-A	
18	.049 (1.24)	1.204 (30.5)	1.177 (29.9)	1.294 (32.8)	R1285	M-70	R-34	R1286	M-70	R-34-A		
1-3/8"	10	.134 (3.40)	1.232 (31.2)	1.206 (30.6)	1.321 (33.5)	R1287	M-70	R-35	R1288	M-70	R-35-A	
	11	.120 (3.04)	1.260 (32.0)	1.235 (31.3)	1.350 (34.2)	R1291	M-70	R-36	R1292	M-70	R-36-A	
	12	.109 (2.76)	1.282 (32.5)	1.257 (31.9)	1.372 (34.8)	R1293	M-70	R-37	R1294	M-70	R-37-A	
	13	.095 (2.41)	1.310 (33.2)	1.285 (32.6)	1.400 (35.5)	R1295	M-71	R-37	R1296	M-71	R-37-A	
	14	.083 (2.10)	1.334 (33.8)	1.285 (32.6)	1.400 (35.5)	R1295	M-71	R-37	R1296	M-71	R-37-A	
	15	.072 (1.82)	1.356 (34.4)	1.331 (33.8)	1.446 (36.7)	R1297	M-71	R-38	R1298	M-71	R-38-A	
	16	.065 (1.65)	1.370 (34.8)	1.331 (33.8)	1.446 (36.7)	R1297	M-71	R-38	R1298	M-71	R-38-A	
	17	.058 (1.47)	1.384 (35.1)	1.331 (33.8)	1.472 (37.3)	R1299	M-72	R-38	R1300	M-72	R-38-A	
	18	.049 (1.24)	1.402 (35.6)	1.331 (33.8)	1.472 (37.3)	R1299	M-72	R-38	R1300	M-72	R-38-A	
	19	.042 (1.06)	1.416 (35.9)	1.331 (33.8)	1.472 (37.3)	R1299	M-72	R-38	R1300	M-72	R-38-A	
20	.035 (0.88)	1.430 (36.3)	1.331 (33.8)	1.472 (37.3)	R1299	M-72	R-38	R1300	M-72	R-38-A		
34.92	8	.165 (4.19)	1.170 (29.7)	1.145 (29.0)	1.260 (32.0)	R1289	M-69	R-34	R1290	M-69	R-34-A	
	9	.148 (3.75)	1.204 (30.5)	1.177 (29.9)	1.294 (32.8)	R1285	M-70	R-34	R1286	M-70	R-34-A	
	10	.134 (3.40)	1.232 (31.2)	1.206 (30.6)	1.321 (33.5)	R1287	M-70	R-35	R1288	M-70	R-35-A	
	11	.120 (3.04)	1.260 (32.0)	1.235 (31.3)	1.350 (34.2)	R1291	M-70	R-36	R1292	M-70	R-36-A	
	12	.109 (2.76)	1.282 (32.5)	1.257 (31.9)	1.372 (34.8)	R1293	M-70	R-37	R1294	M-70	R-37-A	
	13	.095 (2.41)	1.310 (33.2)	1.285 (32.6)	1.400 (35.5)	R1295	M-71	R-37	R1296	M-71	R-37-A	
	14	.083 (2.10)	1.334 (33.8)	1.285 (32.6)	1.400 (35.5)	R1295	M-71	R-37	R1296	M-71	R-37-A	
	15	.072 (1.82)	1.356 (34.4)	1.331 (33.8)	1.446 (36.7)	R1297	M-71	R-38	R1298	M-71	R-38-A	
	16	.065 (1.65)	1.370 (34.8)	1.331 (33.8)	1.446 (36.7)	R1297	M-71	R-38	R1298	M-71	R-38-A	
	17	.058 (1.47)	1.384 (35.1)	1.331 (33.8)	1.472 (37.3)	R1299	M-72	R-38	R1300	M-72	R-38-A	
18	.049 (1.24)	1.402 (35.6)	1.331 (33.8)	1.472 (37.3)	R1299	M-72	R-38	R1300	M-72	R-38-A		
38.10	19	.042 (1.06)	1.416 (35.9)	1.331 (33.8)	1.472 (37.3)	R1299	M-72	R-38	R1300	M-72	R-38-A	
	20	.035 (0.88)	1.430 (36.3)	1.331 (33.8)	1.472 (37.3)	R1299	M-72	R-38	R1300	M-72	R-38-A	

mm

9.5

in

1/2

mm

12.7