

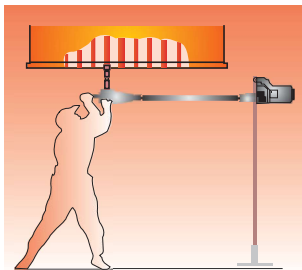
# Boiler Tube Expanders

## 'TA' Series [Parallel]

### 3 Plain Rollers



- ? Excellent expander for re-rolling and new construction
- ? Popular choice for small No. of tubes

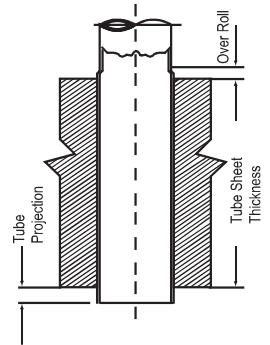


Tube expansion in vertical tubes

- Drive in conjunction with telescopic shaft coupled to a right angled gear drive makes tube installations easier.

TUBE SIZE				Min I.D. Tool Enters		Max Expansion of Tool		TUBE EXPANDER MODEL				
								Tube Sheet Thickness Range				
O.D. inch	THK bwg	O.D. inch	THK bwg	mm	inch	mm	inch	1/2" to 7/8"	3/4" to 1.1/8"	1.1/8" to 1.5/8"	1.5/8" to 2.1/8"	2.1/8" to 2.5/8"
				Tube Sheet Thickness Codes >				2	3	4	5	6
7/8	15	1	10	18.1	0.712	20.4	0.803	TA-31/2	TA-31/3			
	16	-	-	18.4	0.724	20.7	0.814	TA-32/2	TA-32/3			
	17	1	11	18.8	0.740	21.1	0.830	TA-33/2	TA-33/3			
	18	1	12	19.4	0.763	21.6	0.850	TA-34/2	TA-34/3			
	19 - 20	1.1/8	8	19.7	0.775	22.3	0.877	TA-35/2	TA-35/3			
1	13	-	-	20.1	0.791	22.4	0.881	TA-36/2	TA-36/3			
	14	1.1/8	9	20.6	0.811	23.1	0.909	TA-37/2	TA-37/3	TA-37/4		
	15 - 16	1.1/8	10	21.3	0.838	23.8	0.937	TA-38/2	TA-38/3	TA-38/4		
	17 - 18	1.1/8	11	22.0	0.866	24.5	0.964	TA-39/2	TA-39/3	TA-39/4		
	19 - 20	1.1/8	12	22.4	0.881	25.0	0.984	TA-40/2	TA-40/3	TA-40/4		
1.1/4	8	1.1/8	13	23.3	0.917	25.9	1.019	TA-41/2	TA-41/3	TA-41/4		
	9	1.1/8	14	23.8	0.937	26.5	1.043	TA-42/2	TA-42/3	TA-42/4		
	10	1.1/8	15- 16	24.4	0.960	27.2	1.070	TA-43/2	TA-43/3	TA-43/4		
	11			25.2	0.992	28.0	1.102	TA-44/2	TA-44/3	TA-44/4		
	12			25.7	1.011	28.5	1.122	TA-45/2	TA-45/3	TA-45/4		
	13	1.3/8	8	26.1	1.027	28.8	1.133	TA-46/2	TA-46/3	TA-46/4		
	14			26.4	1.039	29.2	1.149	TA-47/2	TA-47/3	TA-47/4		
	15	1.3/8	9	26.9	1.059	29.7	1.169	TA-48/2	TA-48/3	TA-48/4		
16	1.3/8	10	27.6	1.086	30.4	1.196	TA-49/2	TA-49/3	TA-49/4	TA-49/5	TA-49/6	
1.1/2	7	1.3/8	11	28.3	1.114	31.2	1.228	TA-50/2	TA-50/3	TA-50/4	TA-50/5	TA-50/6
	8	1.3/8	12	28.8	1.133	31.7	1.248	TA-51/2	TA-51/3	TA-51/4	TA-51/5	TA-51/6
	9	1.3/8	13 - 14	29.5	1.161	33.4	1.314	TA-52/2	TA-52/3	TA-52/4	TA-52/5	TA-52/6
	10	1.3/8	15 - 16	30.0	1.181	34.1	1.342	TA-53/2	TA-53/3	TA-53/4	TA-53/5	TA-53/6
	11 - 12			30.6	1.204	34.8	1.370	TA-54/2	TA-54/3	TA-54/4	TA-54/5	TA-54/6
	13	1.3/4	5	31.4	1.236	35.6	1.401	TA-55/2	TA-55/3	TA-55/4	TA-55/5	TA-55/6

SPARE ROLLER SET MODEL					SPARE MANDREL MODEL			
Tube Sheet Thickness Range					Drum Type	Header Type	Short Series	SQ
1/2" to 7/8"	3/4" to 1.1/8"	1.1/8" to 1.5/8"	1.5/8" to 2.1/8"	2.1/8" to 2.5/8"				
2	3	4	5	6			5.1/8"	
152-RS	153-RS	-	-	-	TDM-11			3/8" ☒
152-RS	153-RS				TDM-12			
162-RS	163-RS							
202-RS	203-RS							
172-RS	173-RS				TDM-13			
182-RS	183-RS				TDM-12			
182-RS	183-RS	184-RS			TDM-13	THM-13	TSM-13	
192-RS	193-RS	194-RS						
212-RS	213-RS	214-RS						
212-RS	213-RS	214-RS			TDM-14	THM-14	TSM-14	
222-RS	223-RS	224-RS			TDM-15	THM-15	TSM-15	
232-RS	233-RS	234-RS						
242-RS	243-RS	244-RS						
262-RS	263-RS	264-RS						
272-RS	273-RS	274-RS			TDM-16	THM-16	TSM-16	
312-RS	313-RS	314-RS			TDM-17	THM-17	TSM-17	
282-RS	283-RS	284-RS						
292-RS	293-RS	294-RS						
302-RS	303-RS	304-RS	305-RS	306-RS				
302-RS	303-RS	304-RS	305-RS	306-RS	TDM-18	THM-18	TSM-18	
322-RS	323-RS	324-RS	325-RS	326-RS				
282-RS	283-RS	284-RS	285-RS	286-RS	TDM-20	THM-20	TSM-20	
292-RS	293-RS	294-RS	295-RS	296-RS				
302-RS	303-RS	304-RS	305-RS	306-RS				
332-RS	333-RS	334-RS	335-RS	336-RS				



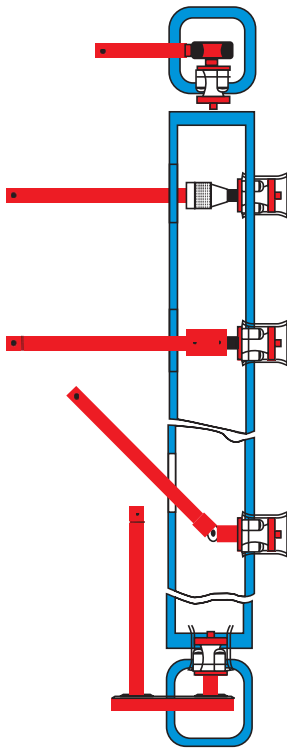
# Boiler Tube Expanders

## 'TA' Series [Parallel]

### 3 Plain Rollers



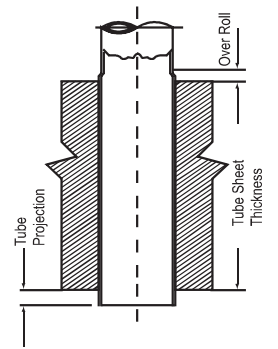
- Excellent expander for re-rolling and new construction
- Popular choice for less No. of tubes



The various drive accessories developed are designed for optimum productivity and operator ease

TUBE SIZE				Min I.D. Tool Enters		Max Expansion of Tool		TUBE EXPANDER MODEL				
								Tube Sheet Thickness Range				
O.D. inch	THK bwg	O.D. inch	THK bwg	mm	inch	mm	inch	1/2" to 7/8"	3/4" to 1.1/8"	1.1/8" to 1.5/8"	1.5/8" to 2.1/8"	2.1/8" to 2.5/8"
				Tube Sheet Thickness Codes >				2	3	4	5	6
1.1/2	14 -5	1.3/4	6	32.6	1.283	36.8	1.448	TA-56/2	TA-56/3	TA-56/4	TA-56/5	TA-56/6
		1.3/4	7	33.4	1.314	38.1	1.500	TA-57/2	TA-57/3	TA-57/4	TA-57/5	TA-57/6
		1.3/4	8	34.2	1.346	38.7	1.523	TA-58/2	TA-58/3	TA-58/4	TA-58/5	TA-58/6
2	3	1.3/4	9 - 10	35.0	1.377	40.6	1.598	TA-59/2	TA-59/3	TA-59/4	TA-59/5	TA-59/6
	4	1.3/4	11 - 12	36.6	1.440	42.2	1.661	TA-60/2	TA-60/3	TA-60/4	TA-60/5	TA-60/6
	5 - 6	1.3/4	13 - 14	38.2	1.503	43.8	1.712	TA-61/2	TA-61/3	TA-61/4	TA-61/5	TA-61/6
	7 - 8	1.3/4	15 - 16	39.8	1.566	45.4	1.787	TA-62/2	TA-62/3	TA-62/4	TA-62/5	TA-62/6
	9 - 10	2.1/4	3	41.4	1.629	47.0	1.850	TA-63/2	TA-63/3	TA-63/4	TA-63/5	TA-63/6
	11 - 13	2.1/4	4	42.9	1.688	49.5	1.948	TA-64/2	TA-64/3	TA-64/4	TA-64/5	TA-64/6
	14 - 16	2.1/4	6 - 7	44.5	1.751	51.1	2.011	TA-65/2	TA-65/3	TA-65/4	TA-65/5	TA-65/6
2.1/2	17 - 18	2.1/4	8 - 9	46.1	1.814	52.7	2.074	TA-66/2	TA-66/3	TA-66/4	TA-66/5	TA-66/6
	3	2.1/4	10 - 11	47.7	1.877	54.3	2.137	TA-67/2	TA-67/3	TA-67/4	TA-67/5	TA-67/6
	4 - 5	2.1/4	12 - 13	49.3	1.940	55.9	2.200	TA-68/2	TA-68/3	TA-68/4	TA-68/5	TA-68/6
	6 - 7	2.1/4	14 - 16	50.8	2.000	57.8	2.275	TA-69/2	TA-69/3	TA-69/4	TA-69/5	TA-69/6
	8 - 9	2.3/4	3	52.4	2.062	59.4	2.338	TA-70/2	TA-70/3	TA-70/4	TA-70/5	TA-70/6
	10 - 11	2.3/4	4	54.0	2.125	61.0	2.401	TR-71/2	TA-71/3	TA-71/4	TA-71/5	TA-71/6
	12 - 14	2.3/4	5 - 6	55.6	2.188	64.0	2.519	TA-72/2	TA-72/3	TA-72/4	TA-72/5	TA-72/6
3	15 - 16	2.3/4	7 - 8	57.2	2.251	65.6	2.582	TA-73/2	TA-73/3	TA-73/4	TA-73/5	TA-73/6
	3	2.3/4	9 - 10	58.6	2.307	67.0	2.637	TA-74/2	TA-74/3	TA-74/4	TA-74/5	TA-74/6
	4	2.3/4	11 - 13	60.4	2.377	68.8	2.708	TA-75/2	TA-75/3	TA-75/4	TA-75/5	TA-75/6
	5 - 6	2.3/4	14 - 16	62.2	2.448	70.4	2.771	TA-76/2	TA-76/3	TA-76/4	TA-76/5	TA-76/6
	7 - 8			63.6	2.503	72.0	2.834	TA-77/2	TA-77/3	TA-77/4	TA-77/5	TA-77/6
	9 - 10	3.1/4	3	65.0	2.559	73.4	2.889	TA-78/2	TA-78/3	TA-78/4	TA-78/5	TA-78/6
	11 - 13	3.1/4	4	66.6	2.622	75.0	2.952	TA-79/2	TA-79/3	TA-79/4	TA-79/5	TA-79/6
14 - 16	3.1/4	5 - 6	68.3	2.688	76.9	3.027	TA-80/2	TA-80/3	TA-80/4	TA-80/5	TA-80/6	

SPARE ROLLER SET MODEL					SPARE MANDREL MODEL			
Tube Sheet Thickness Range					Drum Type	Header Type	Short Series	SQ ∇
1/2" to 7/8"	3/4" to 1.1/8"	1.1/8" to 1.5/8"	1.5/8" to 2.1/8"	2.1/8" to 2.5/8"				
2	3	4	5	6				
342-RS	343-RS	344-RS	345-RS	346-RS	TDM-21	THM-21	TSM-21	12" ∇
362-RS	363-RS	364-RS	365-RS	366-RS				
372-RS	373-RS	374-RS	375-RS	376-RS				
332-RS	333-RS	334-RS	335-RS	336-RS	TDM-22	THM-22	TSM-22	
372-RS	373-RS	374-RS	375-RS	376-RS				
382-RS	383-RS	384-RS	385-RS	386-RS				
392-RS	393-RS	394-RS	395-RS	396-RS				
402-RS	403-RS	404-RS	405-RS	406-RS	TDM-23	THM-23	TSM-23	3/4 ∇
402-RS	403-RS	404-RS	405-RS	406-RS				
412-RS	413-RS	414-RS	415-RS	416-RS				
422-RS	423-RS	424-RS	425-RS	426-RS				
432-RS	433-RS	434-RS	435-RS	436-RS				
442-RS	443-RS	444-RS	445-RS	446-RS	TDM-24	THM-24	TSM-24	
432-RS	433-RS	434-RS	435-RS	436-RS				
442-RS	443-RS	444-RS	445-RS	446-RS				
452-RS	453-RS	454-RS	455-RS	456-RS	TDM-25	THM-25	TSM-25	1" ∇
472-RS	473-RS	474-RS	475-RS	476-RS				
462-RS	463-RS	464-RS	465-RS	466-RS				
472-RS	473-RS	474-RS	475-RS	476-RS				
482-RS	483-RS	484-RS	485-RS	486-RS				
492-RS	493-RS	494-RS	495-RS	496-RS				
502-RS	503-RS	504-RS	505-RS	506-RS				
512-RS	513-RS	514-RS	515-RS	516-RS	TDM-26	THM-26	TSM-26	
522-RS	523-RS	524-RS	525-RS	526-RS				
512-RS	513-RS	514-RS	515-RS	516-RS				



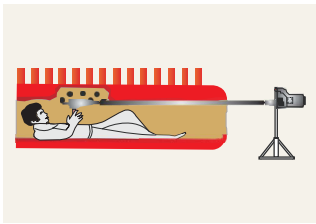
# Boiler Tube Expanders

## 'TA' Series [Parallel]

### 3 Plain Rollers



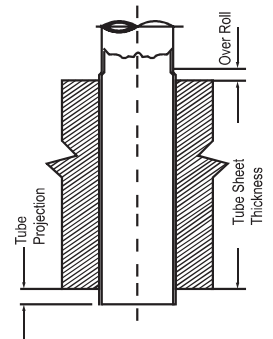
- Excellent expander for re-rolling and new construction
- Popular choice for less No. of tubes



Typical example of solution oriented approach

TUBE SIZE				Min I.D. Tool Enters		Max Expansion of Tool		TUBE EXPANDER MODEL				
O.D. inch	THK bwg	O.D. inch	THK bwg					Tube Sheet Thickness Range				
				mm	inch	mm	inch	1/2" to 7/8"	3/4" to 1.1/8"	1.1/8" to 1.5/8"	1.5/8" to 2.1/8"	2.1/8" to 2.5/8"
				Tube Sheet Thickness Codes >				2	3	4	5	6
3.1/2	2	3.1/4	7 - 8	69.9	2.751	78.5	3.090	TA-81/2	TA-81/3	TA-81/4	TA-81/5	TA-81/6
	3	3.1/4	9 - 10	71.5	2.814	80.1	3.153	TA-82/2	TA-82/3	TA-82/4	TA-82/5	TA-82/6
	4	3.1/4	11 - 13	73.1	2.877	81.7	3.216	TA-83/2	TA-83/3	TA-83/4	TA-83/5	TA-83/6
	5 - 6	3.1/4	14 - 16	74.6	2.937	84.2	3.314	TA-84/2	TA-84/3	TA-84/4	TA-84/5	TA-84/6
	7 - 8	3.3/4	2	76.2	3.000	85.5	3.366	TA-85/2	TA-85/3	TA-85/4	TA-85/5	TA-85/6
	9 - 11	3.3/4	3	77.8	3.062	87.4	3.440	TA-86/2	TA-86/3	TA-86/4	TA-86/5	TA-86/6
	12 - 16	3.3/4	4	79.4	3.125	89.0	3.503	TA-87/2	TA-87/3	TA-87/4	TA-87/5	TA-87/6
	3.3/4	5 - 6	81.0	3.188	90.6	3.566	TA-88/2	TA-88/3	TA-88/4	TA-88/5	TA-88/6	
4	2	3.3/4	7 - 8	82.6	3.251	92.2	3.629	TA-89/2	TA-89/3	TA-89/4	TA-89/5	TA-89/6
	3	3.3/4	9 - 10	84.2	3.314	93.8	3.692	TA-90/2	TA-90/3	TA-90/4	TA-90/5	TA-90/6
	4	3.3/4	11 - 13	85.8	3.377	96.2	3.787	TA-91/2	TA-91/3	TA-91/4	TA-91/5	TA-91/6
	5 - 6	3.3/4	14 - 16	87.4	3.440	97.8	3.850	TA-92/2	TA-92/3	TA-92/4	TA-92/5	TA-92/6
	7 - 8	4.1/4	2	89.0	3.503	99.4	3.913	TA-93/2	TA-93/3	TA-93/4	TA-93/5	TA-93/6
	9 - 11	4.1/4	3	90.4	3.559	100.8	3.968	TA-94/2	TA-94/3	TA-94/4	TA-94/5	TA-94/6
	12 - 16	4.1/4	4	92.0	3.622	102.4	4.031	TA-95/2	TA-95/3	TA-95/4	TA-96/5	TA-95/6
	4.1/4	5 - 6	93.4	3.677	103.8	4.086	TA-96/2	TA-96/3	TA-96/4	TA-96/5	TA-96/6	
4.1/2	2	4.1/4	7 - 8	95.0	3.740	105.4	4.149	TA-97/2	TA-97/3	TA-97/4	TA-97/5	TA-97/6
	3	4.1/4	9 - 11	96.6	3.803	107.0	4.212	TA-98/2	TA-98/3	TA-98/4	TA-98/5	TA-98/6
	4 - 5	4.1/4	11 - 13	98.2	3.866	108.6	4.275	TA-99/2	TA-99/3	TA-99/4	TA-99/5	TA-99/6
	6 - 7			101.2	3.984	110.0	4.330	TA-100/2	TA-100/3	TA-110/4	TA-100/5	TA-100/6
	8 - 9			102.8	4.047	111.6	4.393	TA-101/2	TA-101/3	TA-101/4	TA-101/5	TA-101-6
	10 - 12			104.4	4.110	113.2	4.456	TA-102/2	TA-102/3	TA-102/4	TA-102/5	TA-102/6

SPARE ROLLER SET MODEL					SPARE MANDREL MODEL			
Tube Sheet Thickness Range					Drum Type	Header Type	Short Series	SQ
1/2"	3/4"	1.1/8"	1.5/8"	2.1/8"				
to	to	to	to	to				
7/8"	1.1/8"	1.5/8"	2.1/8"	2.5/8"			5.1/8"	
2	3	4	5	6				
522-RS	523-RS	524-RS	525-RS	526-RS	TDM-26	THM-26	TSM-26	
532-RS	533-RS	534-RS	535-RS	536-RS				
542-RS	543-RS	544-RS	545-RS	546-RS				
542-RS	543-RS	544-RS	545-RS	546-RS	TDM-27	THM-27	TSM-27	
552-RS	553-RS	554-RS	555-RS	556-RS				
562-RS	563-RS	564-RS	565-RS	566-RS				
572-RS	573-RS	574-RS	575-RS	576-RS				
582-RS	583-RS	584-RS	585-RS	586-RS				
592-RS	593-RS	594-RS	595-RS	596-RS				
602-RS	603-RS	604-RS	605-RS	606-RS				
592-RS	593-RS	594-RS	595-RS	596-RS	TDM-28	THM-28	TSM-28	1"
602-RS	603-RS	604-RS	605-RS	606-RS				
612-RS	613-RS	614-RS	615-RS	616-RS				
622-RS	623-RS	624-RS	625-RS	626-RS				
632-RS	633-RS	634-RS	635-RS	636-RS	TDM-29	THM-29	TSM-29	
622-RS	623-RS	624-RS	625-RS	626-RS				
632-RS	633-RS	634-RS	635-RS	636-RS				
642-RS	643-RS	644-RS	645-RS	646-RS	TDM-30	THM-30	TSM-30	
632-RS	633-RS	634-RS	635-RS	646-RS				
642-RS	643-RS	644-RS	645-RS	646-RS				
652-RS	653-RS	654-RS	655-RS	656-RS				
662-RS	663-RS	664-RS	665-RS	666-RS				



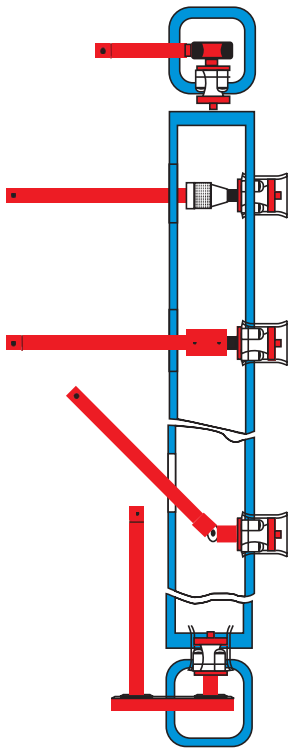
# Boiler Tube Expanders

## 'TAF3' Series [Flare]

- 3 Plain Rollers
- 3 Flare Rollers



- Offset flare rolls eliminates ridges
- Rolls retained in cage when mandrel is removed



The various drive accessories developed are designed for optimum productivity and operator ease

TUBE SIZE				Min I.D. Tool Enters		Max Expansion of Tool		TUBE EXPANDER MODEL				
O.D. inch	THK bwg	O.D. inch	THK bwg	mm	inch	mm	inch	Tube Sheet Thickness Range				
								1/2" to 7/8"	3/4" to 1.1/8"	1.1/8" to 1.5/8"	1.5/8" to 2.1/8"	2.1/8" to 2.5/8"
Tube Sheet Thickness Codes>								2	3	4	5	6
7/8	15	1	10	18.1	0.712	20.4	0.803	TAF3-31/2	TAF3-31/3			
	16			18.4	0.724	20.7	0.814	TAF3-32/2	TAF3-32/3			
	17	1	11	18.8	0.740	21.1	0.830	TAF3-33/2	TAF3-33/3			
	18	1	12	19.4	0.763	21.6	0.850	TAF3-34/2	TAF3-34/3			
	19 - 20	1.1/8	8	19.7	0.775	22.3	0.877	TAF3-35/2	TAF3-35/3			
1	13			20.1	0.791	22.4	0.881	TAF3-36/2	TAF3-36/3			
	14	1.1/8	9	20.6	0.811	23.1	0.909	TAF3-37/2	TAF3-37/3	TAF3-37/4		
	15 - 16	1.1/8	10	21.3	0.838	23.8	0.937	TAF3-38/2	TAF3-38/3	TAF3-38/4		
	17 - 18	1.1/8	11	22.0	0.866	24.5	0.964	TAF3-39/2	TAF3-39/3	TAF3-39/4		
	19 - 20	1.1/8	12	22.4	0.881	25.0	0.984	TAF3-40/2	TAF3-40/3	TAF3-40/4		
1.1/4	8	1.1/8	13	23.3	0.917	25.9	1.019	TAF3-41/2	TAF3-41/3	TAF3-41/4		
	9	1.1/8	14	23.8	0.937	26.5	1.043	TAF3-42/2	TAF3-42/3	TAF3-42/4		
	10	1.1/8	15 - 16	24.4	0.960	27.2	1.070	TAF3-43/2	TAF3-43/3	TAF3-43/4		
	11			25.2	0.992	28.0	1.102	TAF3-44/2	TAF3-44/3	TAF3-44/4		
	12			25.7	1.011	28.5	1.122	TAF3-45/2	TAF3-45/3	TAF3-45/4		
	13	1.3/8	8	26.1	1.027	28.8	1.133	TAF3-46/2	TAF3-46/3	TAF3-46/4		
	14			26.4	1.039	29.2	1.149	TAF3-47/2	TAF3-47/3	TAF3-47/4		
	15	1.3/8	9	26.9	1.059	29.7	1.169	TAF3-48/2	TAF3-48/3	TAF3-48/4		
16	1.3/8	10	27.6	1.086	30.4	1.196	TAF3-49/2	TAF3-49/3	TAF3-49/4	TAF3-49/5	TAF3-49/6	
1.1/2	7	1.3/8	11	28.3	1.114	31.2	1.228	TAF3-50/2	TAF3-50/3	TAF3-50/4	TAF3-50/5	TAF3-50/6
	8	1.3/8	12	28.8	1.133	31.7	1.248	TAF3-51/2	TAF3-51/3	TAF3-51/4	TAF3-51/5	TAF3-51/6
	9	1.3/8	13 - 14	29.5	1.161	33.4	1.134	TAF3-52/2	TAF3-52/3	TAF3-52/4	TAF3-52/5	TAF3-52/6
	10	1.3/8	15 - 16	30.0	1.181	34.1	1.342	TAF3-53/2	TAF3-53/3	TAF3-53/4	TAF3-53/5	TAF3-53/6
	11 - 12			30.6	1.204	34.8	1.370	TAF3-54/2	TAF3-54/3	TAF3-54/4	TAF3-54/5	TAF3-54/6