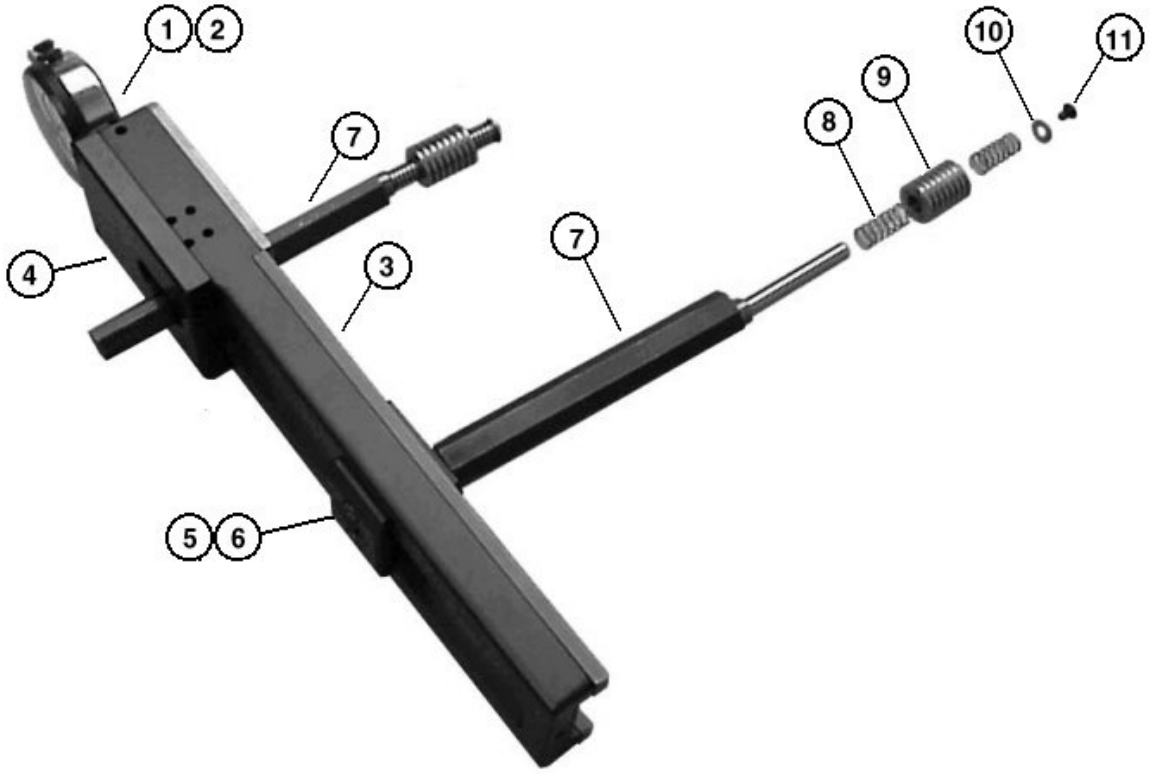
MRP Gage

Model 5000

OPERATION MANUAL

TABLE OF CONTENTS

Parts List

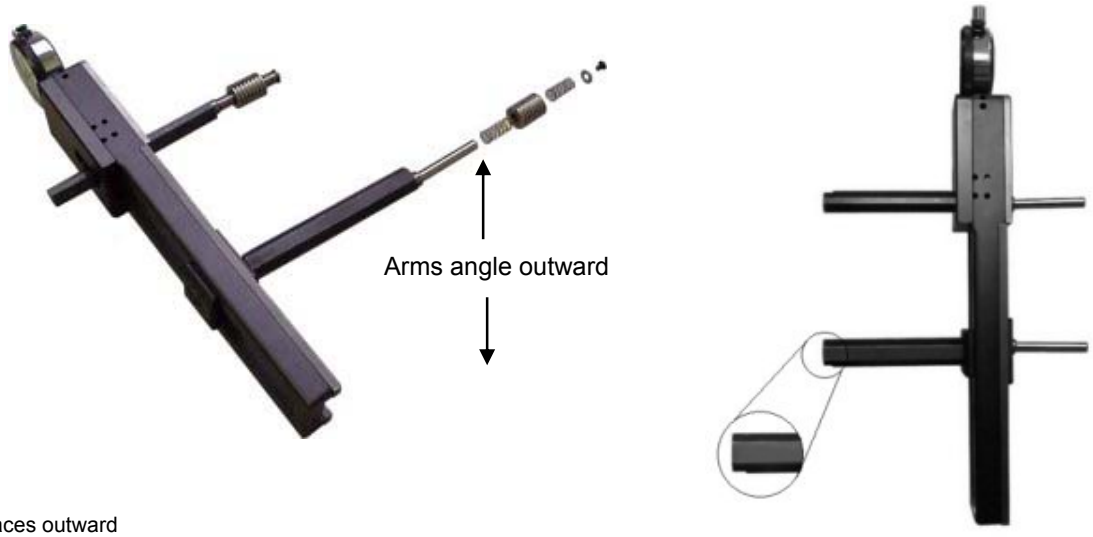


Item No.	Description	Quantity	Part No.
1	Indicator	1	C863RG
2	Indicator Split Bushing	1	400-690
3	Body Assembly	1	
	5001 Model		400-722
	5002 Model		400-723
4	Spring Direction Plate	1	400-729
5	Sliding Block	1	400-728
6	Sliding Block Clamp	1	400-731
7	Taper Arm	1 Pair	Ref. Section 5
8	Spring	2	MRP5-10
9	Thread Roll (purchased separately)	1 Pair	Refer to Catalog
10	Spring Retaining Washer, #8 x ⅜"	2	MRP5-11
11	Lock Screw, #8-32 x %"	2	BHMRP5-12

PIN THREAD INSPECTION ASSEMBLY PROCEDURE

The following procedure outlines steps for assembly and setup of the MRP-5000 gage to inspect external or pin threads.

1. Locate the correct taper arms and thread rolls for the particular application. Refer to Thread Roll Selection Chart in Table 5.0 in the back of this manual for the proper model numbers.
2. Remove the lock screw and spring retaining washer from the lower end of both taper arms.
3. Remove the one of the positioning springs from each taper arm.
4. Slide the thread rolls and the positioning springs onto the taper arms (refer to Diagram 2). Note: One end of each thread roll has a line marked across it. The marked end of the thread roll faces the wearpad.
5. Replace the spring retaining washer and tighten the lock screw in place to secure the thread roll and spring assembly (refer to Diagram 2). The rolls should slide and rotate smoothly.
6. Insert the taper arm assemblies into the upper and lower blocks. Insure the arms are rotated to the proper position to measure an external thread. The notches at the top of the taper arms should always be facing outward for external inspection (refer to Diagram 3).
7. Gently tighten the taper arm lock screws.
8. Ensure that the upper arm directional spring is set for external measurement. The up force toward the lower arm for measuring pin connectors. If the spring pressure is aw the directional spring plate will need to be loosened and rotated 180° to achieve proper spring direction (refer to Diagram 12).



Arm Alignment
(Diagram 3)

PIN SETUP and ZEROING PROCEDURE

The following procedure outlines setup steps for the MRP-5000 gage to inspect external or pin threads.

1. Assemble the thread rolls and taper arms as described in the previous section of this manual.

2. Obtain a copy of the inspection report form or copy one from the back of this manual.

3. Obtain the proper MIC TRAC setting dimensions for your particular connection from the setting dimension tables in this manual (refer to Tables 5.1 through 5.12). Record the setting dimension in the proper space on the Inspection Report Form.

4. Attach the taper blocks to the MIC TRAC receivers, aligning the back of the blocks with the receiver shoulders. Secure the taper blocks in place using the #10-32 x ¾ cap screws included. Adjust the MIC TRAC to the proper position according to the tables in this manual. Lock the brake knob.

5. Using the ⅛" hex wrench supplied with the gage, loosen the locking cap screws on the top of sliding block clamp and move the sliding block outward far enough so the thread rolls clear the taper blocks on the MIC TRAC.

6. Set the MRP-5000 on top of the MIC TRAC taper blocks (refer to Diagram 4).

7. Move the sliding block inward until the thread rolls contact the taper block setting pads.

8. Remove the gage from the MIC TRAC and slide the lower block inward an additional .050" -.075".

9. Tighten the sliding block locking cap screws with the 1/8" hex wrench supplied with the gage. Note: Take care not to damage the gage by over tightening the setscrews.

10. Set the MRP-5000 back on the MIC TRAC taper blocks and align the thread rolls with the center of the setting pads.

11. While keeping slight pressure against the fixed thread roll, sweep the upper block to locate the smallest indicator reading.

12. After locating the smallest indicator reading, rotate and lock the indicator bezel to the zero position

The MRP-5000 is now preset and ready to inspect the pitch diameter of your pin connector.

Zeroing the MRP-5000 with the MIC TRAC Setting Master

(Diagram 4)

MRP-5000 OPERATING GUIDELINES

The following guidelines are provided to help in the proper operation of the MRP-5000.

1. Always double check all setting dimensions.

2. Insure proper setup and alignment of the thread rolls and taper arms by reviewing the Pin Thread Inspection Assembly Procedure in this manual.

3. Re-tighten all lock screws and re-zero the gage prior to taking any measurements.

4. Take care to insure the thread rolls are seated in the thread form while sweeping. If the gage is held flat against the connector face, the thread rolls will maintain the proper alignment to the thread (refer to Diagram 6).

5. Maintain constant light pressure against the face of the connector while sweeping for the largest indicator reading (refer to Diagram 6).

6. Use the fixed thread roll as the pivot point for sweeping. Take readings for a minimum of 180^0 around the connector. Record the highest and lowest reading on the inspection report (Refer to Diagram 5).

Locate highest and lowest indicator reading (Diagram 5)

Use the lower (fixed) roll as a pivot to sweep the gage and locate the largest reading.

The gage contacts the face of the connector as the rolls seat into

Gage seated on the pin connector. (Diagram 6)

BOX THREAD INSPECTION ASSEMBLY PROCEDURE

The following procedure outlines steps for assembly and setup of the MRP-5000 gage to inspect internal or box threads.

1. Locate the correct taper arms and thread rolls for the particular application. Refer to the Thread Roll Selection Chart, Table 5.0 for the proper model numbers.

2. Remove the lock screw and spring retaining washer from the lower end of both taper arms.

3. Remove the lower positioning springs from the taper arms.

4. Slide the thread rolls and the lower springs onto the taper arms (refer to Diagram 7). Note: One end of each thread roll is marked with a line. The marked end of the thread roll should face the wear pad.

5. Replace the spring retaining washer and tighten the lock screw in place to secure the thread roll and spring assembly (refer to Diagram 7).

6. Insert the taper arm assemblies into the upper and lower blocks. Note: Insure the arms are rotated to the proper position to measure an internal thread. The notches at the top of the taper arms should always be facing inward for internal inspection (refer to Diagram 8).

7. Insert the arm into the gage until the distance from the wear pad to the outside end of the thread roll is equal to or less than the full form thread length of the connector.

8. Gently tighten the taper arm lock screws.

9. Insure that the upper arm directional spring is set for internal measurement. The upper arm should exert force away from the sliding arm for measuring box connectors. If the spring pressure is toward the lower arm, the directional spring plate will need to be removed and rotated 180° to achieve proper spring direction (refer to Diagram 12).

Assembling thread rolls and taper arms
(Diagram 7)

Arm alignment
(Diagram 8)

BOX SETUP and ZEROING PROCEDURE

The following procedure outlines setup steps for the MRP-5000 gage to inspect internal or box threads. Assemble the thread rolls and taper arms as described in the Box Thread Inspection Assembly Procedure in this manual.

1. Obtain a copy of your inspection report form or copy one from the back of this manual.

2. Obtain the proper MIC TRAC setting dimensions for your particular connection from the setting dimension tables in the back of this manual (refer to Tables 5.1 through 5.12). Record the setting dimension in the proper space on the Inspection Report Form.

3. Attach the taper blocks to the MIC TRAC receivers, aligning the back of the blocks with the receiver shoulders. Secure the taper blocks in place using the #10-32 x ¾ cap screws included. Adjust the MIC TRAC to the proper position according to the setting values in Tables 5.1 - 5.12. Lock the brake knob.

4. Using the 1/8" hex wrench supplied with the gage, loosen the locking cap screws on the sliding block clamp and move the sliding block inward far enough so the thread rolls clear the taper blocks on the MIC TRAC.

5. Set the MRP-5000 on top of the MIC TRAC taper blocks (refer to Diagram 9). Move the slider block outward until the thread rolls contact the taper block setting pads. Remove the gage from the MIC TRAC and move the sliding block out an additional .050" -.075".

6. Tighten the sliding block clamp locking cap screws with the 1/8" hex wrench supplied with the gage. Note: Take care not to damage the gage by over-tightening the cap screws.

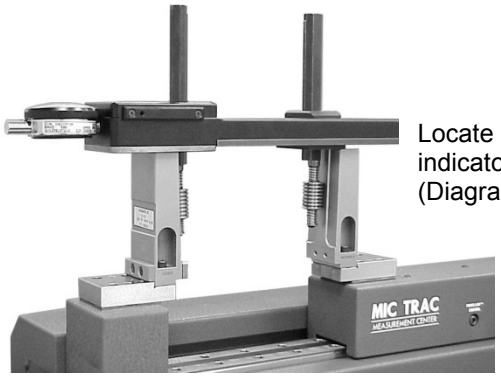
7. Set the MRP-5000 back on the MIC TRAC taper blocks and align the thread rolls with the center of the setting pads.

8. While keeping slight pressure against the fixed thread roll, sweep the upper block to locate the smallest indicator reading.

9. After locating the smallest indicator reading, rotate and lock the indicator bezel to the zero position.

The MRP-5000 is now preset and ready to inspect the functional diameter of your box connector.

Zeroing the MRP-5000 with the MIC TRAC Setting Master (Diagram 9)



Locate highest and lowest indicator reading (Diagram 10)

MRP-5000 OPERATING GUIDELINES

The following guidelines are provided to help in the proper operation of the MRP-5000.

1. Always double check all setting dimensions.

2. Insure proper setup and alignment of the thread rolls and taper arms by reviewing the Box Thread Inspection Assembly Procedure in this manual.

3. Re-tighten all lock screws and re-zero the gage prior to taking any measurements.

4. Take care to insure the thread rolls stay seated in the thread form while sweeping. If the gage is held flat against the connector face, the thread rolls will maintain the proper alignment to the thread (refer to Diagram 11).

5. Maintain constant light pressure against the face of the connector while sweeping for the largest indicator reading (refer to Diagram 11).

6. Use the fixed thread roll as the pivot point for sweeping.

7. Take readings for a minimum of 180° around the connector. Record the highest and lowest reading on the inspection report.

Take readings 180° around the part to determine ovality

Use the lower (fixed) roll as a pivot to sweep the gage and locate the largest reading.

The gage contacts the face of the coupling as the rolls seat into the threads.

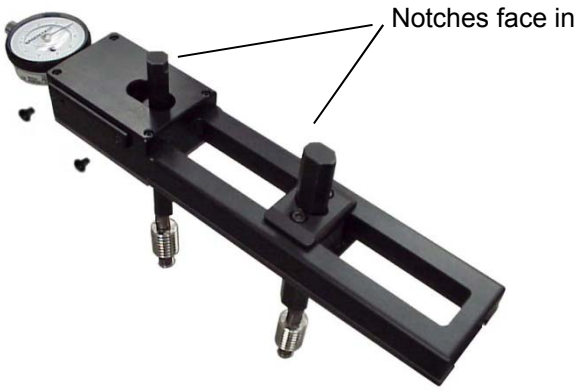
(Diagram 11)

INSPECT INTERNAL AND EXTERNAL THREADS

The MRP-5000 Tapered thread roll gage inspects internal (box) threads as well as external (pin) threads. The diagrams below illustrate how to change the gage from internal measurement to external measurement.

INTERNAL SETUP

Setup for internal inspection. Note that the end of the arms and the thread rolls point inward. The notches at the end of each arm should point inward also.
Spring tension on the upper arm should be in the outward direction.

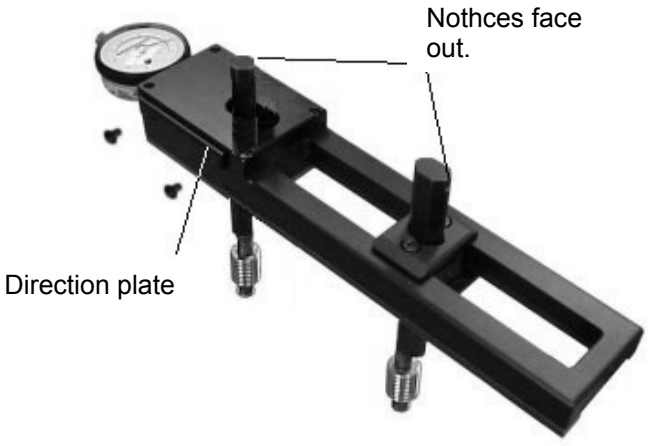


EXTERNAL SETUP

To change to external setup, remove the screws from the direction plate on the side of the body, and rotate the plate 180^0. Re-attached the plate.

Loosen the arms and rotate them 180° so that the notches at the end of the arms are point outward.

The spring tension on the upper arm should be in the inward direction.



(Diagram 12)

TAPER ARM and THREAD ROLL SELECTION CHART

Connection	Taper Arm Model No.	Thread Roll Model No.
11½ TPI "V" Line Pipe	MRP5-75T	TR-11V
10-Round	MRP5-75T	TR-10R
8-Round	MRP5-75T	TR-8R
4 ½"-13 ⅜" Buttress Pins	MRP5-75T	TR-B75E
4 ½"-13 ⅜" Buttress Couplings	MRP5-75T	TR-B75I
16"-20" Buttress Pins	MRP5-10T	TR-B10E
16"-20" Buttress Couplings	MRP5-10T	TR-B10I

Table 5.0

LINE PIPE CONNECTIONS ONLY
THREAD ROLL MODEL NO. TR8R

MIC TRAC SETTING DIMENSIONS

FOR THE MRP-5001 and MRP-5002

API LINE PIPE CONNECTIONS, 2 ½" THRU 20"

(FOR USE WITH MODEL TF-75T SETTING BLOCKS
¾" TAPER PER FOOT and THREAD ROLL MODEL NO. TR8R or TR10R)

Nominal Pipe Size LINE PIPE ONLY	Thread Roll Model No.	Pin Dimensions (External)	Box Dimensions (Internal)
2 ½”	TR8R	2.1969	2.4487
3"	TR8R	2.8180	3.0737
3 ½”	TR8R	3.3149	3.5737
4"	TR8R	3.8117	4.0737
5"	TR8R	4.8681	5.1367
6"	TR8R	5.9234	6.1987
8"	TR8R	7.9109	8.1987
10"	TR8R	10.0227	10.3237
12"	TR8R	12.0102	12.3237
14"	TR8R	13.2524	13.5737
16"	TR8R	15.2399	15.5737
18"	TR8R	17.2274	17.5737
20"	TR8R	19.2149	19.5737

Table 5.1

EUE AND NUE CONNECTIONS ONLY
THREAD ROLL MODEL NO. TR8R

MIC TRAC SETTING DIMENSIONS

FOR THE MRP-5001 and MRP-5002

API NUE CONNECTIONS, ¾" THRU 4 ½"

(FOR USE WITH MODEL TF-75T SETTING BLOCKS
¾" TAPER PER FOOT and THREAD ROLL MODEL NO. TR8R or TR10R)

Nominal Pipe Size NUE ONLY	Thread Roll Model No.	Pin Dimensions (External)	Box Dimensions (Internal)
2⅜"	TR10R	1.7423	1.9749
2⅞"	TR10R	2.2149	2.4749
3½"	TR10R	2.8243	3.0999
4"	TR8R	3.2921	3.5942
4½"	TR8R	3.7804	4.0942

Table 5.2 (rev A, 11/12/97)

MIC TRAC SETTING DIMENSIONS

FOR THE MRP-5001 and MRP-5002

API 8R EUE CONNECTIONS, ¾" THRU 4 ½"

(FOR USE WITH MODEL TF-75T SETTING BLOCKS
¾" TAPER PER FOOT and THREAD ROLL MODEL NO. TR8R)

Nominal Pipe Size EUE ONLY	Thread Roll Model No.	Pin Dimensions (External)	Box Dimensions (Internal)
2⅜"	TR8R	1.9132	2.1877
2⅞"	TR8R	2.4015	2.6877
3½"	TR8R	3.0420	3.3439
4"	TR8R	3.5342	3.8439
4½"	TR8R	4.0264	4.3439

Table 5.3

SPECIAL FOR API "10V and 11 ½ V"
SHARP "V" EUE and NUE CONNECTIONS ONLY

THREAD ROLL MODEL NO. TR10R and TR-11LP

MIC TRAC SETTING DIMENSIONS

FOR THE MRP-5001 and MRP-5002

API "SHARP V" NUE CONNECTIONS, 1 ½" THRU 4"

(FOR USE WITH MODEL TF-75T SETTING BLOCKS
¾" TAPER PER FOOT and THREAD ROLL MODEL NO. TR10R or TR11LP)

Nominal Pipe Size NUE ONLY	Thread Roll Model No.	Pin Dimensions (External)	Box Dimensions (Internal)
1½	TR11LP	N/A	1.4310
2	TR11LP	N/A	1.9061
2½	TR11LP	N/A	2.4059
3	TR11LP	N/A	3.0310
3½	TR10R	N/A	3.5656
4	TR10R	N/A	4.0656

Table 5.4

MIC TRAC SETTING DIMENSIONS

FOR THE MRP-5001 and MRP-5002

API SHARP "V" EUE CONNECTIONS , 1 ¼" THRU 4"

(FOR USE WITH MODEL TF-75T SETTING BLOCKS
3/4" TAPER PER FOOT and THREAD ROLL MODEL NO. TR10R and TR11LP)

Nominal Pipe Size EUE ONLY	Thread Roll Model No.	Pin Dimensions (External)	Box Dimensions (Internal)
1¼	TR11LP	N/A	1.3435
1½	TR11LP	N/A	1.6247
2	TR10R	N/A	2.1594
2½	TR10R	N/A	2.6594
3	TR10R	N/A	3.3156
3½	TR10R	N/A	3.8156
4	TR10R	N/A	4.3157

Table 5.5

STC CONNECTIONS ONLY
THREAD ROLL MODEL NO. TR8R

MIC TRAC SETTING DIMENSIONS

FOR THE MRP-5000

API 8R STC CONNECTIONS, 4 ½" THRU 20"

(FOR USE WITH MODEL TF-75T SETTING BLOCKS
3/4" TAPER PER FOOT and THREAD ROLL MODEL NO. TR8R)

Nominal Pipe Size STC ONLY	Weight/Foot	Grade	Pin Dimensions (External)	Box Dimensions (Internal)
4½”	9.50	All	3.8233	4.0940
4½”	Others	All	3.7843	4.0940
5”	11.50	All	4.2921	4.5940
5"	Others	All	4.2764	4.5940
5½”	All	All	4.7686	5.0940
6⅝”	All	All	5.8780	6.2190
7"	17.00	All	6.2999	6.5940
7"	Others	All	6.2530	6.5940
7⅝”	All	All	6.8702	7.2151
8⅝”	24.00	All	7.8858	8.2151
8⅝”	Others	All	7.8624	8.2151
9⅝”	All	< P-110	8.8624	9.2151
9⅝”	All	> P-110	8.8624	9.2111
10¾”	32.75	< P-110	10.0264	10.3401
10¾“	Others	< P-110	9.9796	10.3401
10¾“	Others	> P-110	9.9796	10.3362
11¾“	All	< P-110	10.9796	11.3401
11¾“	All	> P-110	10.9796	11.3362
13⅜”	All	< P-110	12.6046	12.9651
13⅜“	All	> P-110	12.6046	12.9612
16"	All	All	15.1983	15.5901
18⅝”	87.50	All	17.8233	18.2151
20"	All	< J-55, K-55	19.1983	19.5901
20'	All	> J-55, K-55	19.1983	19.5862

TABLE 5.6

LTC CONNECTIONS ONLY
THREAD ROLL MODEL NO. TR8R

MIC TRAC SETTING DIMENSIONS

FOR THE MRP-5002 AND MRP-5003

API 8R LTC CONNECTIONS, 4 1/2" THRU 20"

(FOR USE WITH MODEL TF-75T SETTING BLOCKS

3/4" TAPER PER FOOT and THREAD ROLL MODEL NO. TR8R)

Nominal Pipe Size LTC ONLY	Weight/Foot	Grade	Pin Dimensions (External)	Box Dimensions (Internal)
4½”	All	All	3.7608	4.0940
5"	All	All	4.2374	4.5940
5½”	All	All	4.7296	5.0940
6⅝”	All	All	5.8311	6.2190
7"	All	All	6.1983	6.5940
7⅝”	All	All	6.8155	7.2151
8⅝”	All	All	7.7912	8.2151
9⅝”	All	< P-110	8.7764	9.2151
9⅝”	All	> P-110	8.7764	9.2111
20"	All	< J-55, K-55	19.1202	19.5901
20"	All	> J-55, K-55	19.1202	19.5862

Table 5.7

4 ½" - 13 ⅜" BUTTRESS CONNECTIONS ONLY

MIC TRAC SETTING DIMENSIONS

FOR THE MRP-5002

API BUTTRESS CONNECTIONS, 4 ½" THRU 13 ⅜"

(FOR USE WITH MODEL TF-75T SETTING BLOCKS

3/4" TAPER PER FOOT and THREAD ROLL MODEL NOS. TRB75E and TRB75I)

Nominal Pipe Size BUTTRESS	Weight/Foot	Grade	Pin Dimensions (External)	Box Dimensions (Internal)
4½"	All	All	3.8135	4.2330
5"	All	All	4.3057	4.7267
5½"	All	All	4.8018	5.2267
6⅝"	All	All	5.9151	6.3433
7"	All	All	6.2783	6.7267
7⅝"	All	All	6.8916	7.3517
8⅝"	All	All	7.8838	8.3517
9⅝"	All	All	8.8838	9.3517
10¾"	All	All	10.0088	10.4767
11¾"	All	All	11.0088	11.4767
13⅜"	All	All	12.6338	13.1017

Table 5.8

16" - 20" BUTTRESS CONNECTIONS ONLY

MIC TRAC SETTING DIMENSIONS

FOR THE MRP-5003

API BUTTRESS CONNECTIONS, 16" AND LARGER

(FOR USE WITH MODEL TF-1T SETTING BLOCKS

1" TAPER PER FOOT and THREAD ROLL MODEL NOS. TRB10E and TRB10I)

Nominal Pipe Size BUTTRESS	Weight/Foot	Grade	Pin Dimensions (External)	Box Dimensions (Internal)
16"	All	All	15.2129	15.6359
18⅝"	All	All	17.8379	18.2609
20"	All	All	19.2129	19.6359

Table 5.9

PITCH DIAMETER VS. STANDOFF

Use the table below to calculate how pitch diameter is effects standoff.

Connection Taper	Divide	By	To obtain
.75" TPF	Pitch diameter reading	.0625	Standoff variation
1.00" TPF	Pitch diameter reading	.0833	Standoff variation
1.25" TPF	Pitch diameter reading	.1042	Standoff variation
1.5" TPF	Pitch diameter reading	.1250	Standoff variation
2" TPF	Pitch diameter reading	.1667	Standoff variation
3" TPF	Pitch diameter reading	.2500	Standoff variation
3.5" TPF	Pitch diameter reading	.2917	Standoff variation

Example: On a 2" TPF connector, a pitch diameter reading of -.002" equals a standoff of -.012".
(-.002 / .1667 = -.012)

Table 5.10

MIC TRAC CPU SETTINGS
FOR API TOOL JOINT BOX CONNECTORS

P.A.C. CONNECTIONS

GAGE	SIZE	THREAD ROLL	TAPER BLOCK	CPU SETTING*	INSPECTION TOLERANCE**
MRP-5001	2⅜"	TR-415	TF-15RSC		-.000 / -.0015
	2⅞"	TR-415	TF-15RSC		-.000 / -.0015
	3½"	TR-415	TF-15RSC		-.000 / -.0015

API FULL HOLE

GAGE	SIZE	THREAD ROLL	TAPER BLOCK	CPU SETTING*	INSPECTION TOLERANCE**
MRP-5001	3½"	TR-5340	TF-30RSC		-.000 / +.003
	4"	TR-4238	TF-20RSC		-.000 / +.002
	4½"	TR-5340	TF-30RSC		-.000 / +.003
	5½"	TR-4238	TF-20RSC		-.000 / +.002
MRP-5002	6⅝"	TR-4238	TF-20RSC		-.000 / +.002

HUGHES EXTRA HOLE

GAGE	SIZE	THREAD ROLL	TAPER BLOCK	CPU SETTING*	INSPECTION TOLERANCE**
MRP-5001	3½"	TR-4238	TF-20RSC		-.000 / +.002
	4½"	TR-4238	TF-20RSC		-.000 / +.002
	5½"	TR-4238	TF-20RSC		-.000 / +.002

HUGHES SLIM HOLE

GAGE	SIZE	THREAD ROLL	TAPER BLOCK	CPU SETTING*	INSPECTION TOLERANCE**
MRP-5001	2⅞"	TR-4238	TF-20RSC		-.000 / +.002
	3½"	TR-4238	TF-20RSC		-.000 / +.002
	4"	TR-4238	TF-20RSC		-.000 / +.002
	4½"	TR-4238	TF-20RSC		-.000 / +.002

Table 5.11

*** CPU MUST BE IN "INTERNAL" MODE**
**** BASED ON NOMINAL CONNECTION TAPER**

API INTERNAL FLUSH

GAGE	SIZE	THREAD ROLL	TAPER BLOCK	CPU SETTING*	INSPECTION TOLERANCE**
MRP-5001	2⅜"	TR-4238	TF-20RSC		-.000 / +.002
	2⅞"	TR-4238	TF-20RSC		-.000 / +.002
	3½"	TR-4238	TF-20RSC		-.000 / +.002
	4"	TR-4238	TF-20RSC		-.000 / +.002
	4½"	TR-4238	TF-20RSC		-.000 / +.002
MRP-5002	5½"	TR-4238	TF-20RSC		-.000 / +.002
	6⅝"	TR-4238	TF-20RSC		-.000 / +.002

API REGULAR

GAGE	SIZE	THREAD ROLL	TAPER BLOCK	CPU SETTING*	INSPECTION TOLERANCE**
MRP-5001	2⅜"	TR-5340	TF-30RSC		-.000 / +.003
	2⅞"	TR-5340	TF-30RSC		-.000 / +.003
	3½"	TR-5340	TF-30RSC		-.000 / +.003
	4½"	TR-5340	TF-30RSC		-.000 / +.003
	5½"	TR-4338	TF-30RSC		-.000 / +.003
	6⅝"	TR-4238	TF-20RSC		-.001 / +.002
MRP-5002	7⅝"	TR-4338	TF-30RSC		-.000 / +.003
	8⅝"	TR-4338	TF-30RSC		-.000 / +.003

API NUMBERED CONNECTIONS

GAGE	SIZE	THREAD ROLL	TAPER BLOCK	CPU SETTING*	INSPECTION TOLERANCE**
MRP-5001	#23	TR-4238	TF-20RSC		-.000 / +.002
	#26	TR-4238	TF-20RSC		-.000 / +.002
	#31	TR-4238	TF-20RSC		-.000 / +.002
	#35	TR-4238	TF-20RSC		-.000 / +.002
	#38	TR-4238	TF-20RSC		-.000 / +.002
	#40	TR-4238	TF-20RSC		-.000 / +.002
	#44	TR-4238	TF-20RSC		-.000 / +.002
	#46	TR-4238	TF-20RSC		-.000 / +.002
	#50	TR-4238	TF-20RSC		-.000 / +.002
	#56	TR-4338	TF-30RSC		-.000 / +.003
	#61	TR-4338	TF-30RSC		-.000 / +.003
MRP-5002	#70	TR-4338	TF-30RSC		-.000 / +.003
MRP-5003	#77	TR-4338	TF-30RSC		-.000 / +.003

Table 5.12

*** CPU MUST BE IN "INTERNAL" MODE**

**** BASED ON NOMINAL CONNECTION TAPER**

HUGHES SLIMLINE H-90

GAGE	SIZE	THREAD ROLL	TAPER BLOCK	CPU SETTING*	INSPECTION TOLERANCE**
MRP-5001	2⅜"	TR-3125H9	TF-125RSC		-.000 / +.0015
	2⅞"	TR-3125H9	TF-125RSC		-.000 / +.0015
	3½"	TR-3125H9	TF-125RSC		-.000 / +.0015

HUGHES H-90

GAGE	SIZE	THREAD ROLL	TAPER BLOCK	CPU SETTING*	INSPECTION TOLERANCE**
MRP-5001	3½"	TR-352H9	TF-20RSC		-.000 / +.002
	4"	TR-352H9	TF-20RSC		-.000 / +.002
	4½"	TR-352H9	TF-20RSC		-.000 / +.002
	5"	TR-352H9	TF-20RSC		-.000 / +.002
	5½"	TR-352H9	TF-20RSC		-.000 / +.002
	6⅝"	TR-352H9	TF-20RSC		-.000 / +.002
MRP-5002	7"	TR-353H9	TF-30RSC		-.000 / +.003
	7⅝"	TR-353H9	TF-30RSC		-.000 / +.003
	8⅝"	TR-353H9	TF-30RSC		-.000 / +.003

Table 5.13

*** CPU MUST BE IN "INTERNAL" MODE**

**** BASED ON NOMINAL CONNECTION TAPER**

INSPECTION REPORT FORM

Work Order No._____
Customer No. _____
Date: _____

Tool Joint Inspection Report

Joint No.	Pitch Diameter Tol. ± _____		Faceback Tol. ± ___	Lead Tol. ± ____	Taper Tol. ± ____	Accept Reject	Comments
	High	Low					

DISCLAIMER:
The calculations provided are, to the best of our knowledge, correct and accurate, however, Gagemaker assumes no responsibility for the accuracy of the dimensions provided herein. These are provided to the customer with the understanding that any product inspected to these dimensions will be verified by the customer for accuracy and compliance with the API specifications.

INSPECTION REPORT FORM

Work Order No._____
Customer No. _____
Date: _____

Threaded Tubular Inspection Report

Joint No.	Pitch Diameter Tol. ± _____		Faceback Tol. ± ___	Lead Tol. ± ____	Taper Tol. ± ____	Accept Reject	Comments
	High	Low					

DISCLAIMER:
The calculations provided are, to the best of our knowledge, correct and accurate, however, Gagemaker assumes no responsibility for the accuracy of the dimensions provided herein. These are provided to the customer with the understanding that any product inspected to these dimensions will be verified by the customer for accuracy and compliance with the API specifications.

INSPECTION REPORT FORM

Work Order No._____
Customer No. _____
Date: _____

Threaded Tubular Inspection Report

Joint No.	Pitch Diameter Tol. ± _____		Faceback Tol. ± ___	Lead Tol. ± ____	Taper Tol. ± ____	Accept Reject	Comments
	High	Low					

DISCLAIMER:
The calculations provided are, to the best of our knowledge, correct and accurate, however, Gagemaker assumes no responsibility for the accuracy of the dimensions provided herein. These are provided to the customer with the understanding that any product inspected to these dimensions will be verified by the customer for accuracy and compliance with the API specifications.

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