



MODEL 412 PORTABLE TUBE BENDER

TOOLING

Combination Slide Block

1/4, 5/16, 3/8, 1/2, 5/8 & 3/4	7-2754-12-2
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Conventional Radius Blocks

1/4 O.D. x 9/16 CLR	8-154-55-7
1/4 O.D. x 3/4 CLR	8-154-55-1
5/16 O.D. x 11/16 CLR	8-154-55-8
5/16 O.D. x 1 CLR	8-154-55-2
3/8 O.D. x 15/16 CLR	8-154-55-9
3/8 O.D. x 1-1/4 CLR	8-154-55-3
1/2 O.D. x 1-1/4 CLR	8-154-55-10
1/2 O.D. x 2 CLR	8-154-55-4
5/8 O.D. x 1-1/2 CLR	8-154-55-11
5/8 O.D. x 2-1/2 CLR	8-154-55-5
3/4 O.D. x 1-3/4 CLR	8-154-55-12
3/4 O.D. x 3 CLR	8-154-55-6

**METRIC, I.P.S. AND CUSTOM CENTER LINE RADII ARE AVAILABLE
BY SPECIAL ORDER - PLEASE CONSULT FACTORY**

Flare-End Radius Blocks

1/2 O.D. x 1-1/4 CLR	8-154-140
5/8 O.D. x 1-1/2 CLR	8-154-141
3/4 O.D. x 1-3/4 CLR	8-154-142



MODEL 420 LARGE CAPACITY PORTABLE TUBE BENDER

TOOLING

Combination Slide Blocks

1/4, 5/16, 3/8, 1/2, 5/8 & 3/4	7-2754-12-2
7/8, 1, 1-1/8 & 1-1/4	1-762-40

Conventional Radius Blocks

1/4 O.D. x 9/16 CLR	8-154-55-7
1/4 O.D. x 3/4 CLR	8-154-55-1
5/16 O.D. x 11/16 CLR	8-154-55-8
5/16 O.D. x 1 CLR	8-154-55-2
3/8 O.D. x 15/16 CLR	8-154-55-9
3/8 O.D. x 1-1/4 CLR	8-154-55-3
1/2 O.D. x 1-1/4 CLR	8-154-55-10
1/2 O.D. x 2 CLR	8-154-55-4
5/8 O.D. x 1-1/2 CLR	8-154-55-11
5/8 O.D. x 2-1/2 CLR	8-154-55-5
3/4 O.D. x 1-3/4 CLR	8-154-55-12
3/4 O.D. x 3 CLR	8-154-55-6
7/8 O.D. x 3-1/2 CLR	1-762-50-1
1 O.D. x 4 CLR	1-762-50-2
1-1/8 O.D. x 4-1/2 CLR	1-762-50-3
1-1/4 O.D. x 5 CLR	1-762-50-4

**METRIC, I.P.S. AND CUSTOM CENTER LINE RADII ARE AVAILABLE
BY SPECIAL ORDER - PLEASE CONSULT FACTORY**

Flare-End Radius Blocks

1/2 O.D. x 1-1/4 CLR	8-154-140
5/8 O.D. x 1-1/2 CLR	8-154-141
3/4 O.D. x 1-3/4 CLR	8-154-142



MODEL 624 HEAVY DUTY MANUAL TUBE BENDER

TOOLING

Combination Slide Blocks

3/8	8-642-7-3
1/2, 3/4, 1 & 1-1/2	520516
5/8, 7/8, 1-1/8 & 1-1/4	520518

Combination Clamp Blocks

3/8	8-642-6-3
1/2, 3/4, 1 & 1-1/2	631092
5/8, 7/8, 1-1/8 & 1-1/4	631093

Conventional Radius Blocks

3/8 O.D. x 1-1/8 CLR	590512-18
3/8 O.D. x 1-1/4 CLR	590512-20
1/2 O.D. x 1-1/4 CLR	590515-20
1/2 O.D. x 1-1/2 CLR	590515-24
5/8 O.D. x 1-1/2 CLR	590518-24
5/8 O.D. x 1-7/8 CLR	590518-30
3/4 O.D. x 1-3/4 CLR	590521-28
3/4 O.D. x 2-1/4 CLR	590521-36
7/8 O.D. x 2 CLR	590523-32
7/8 O.D. x 2-5/8 CLR	590523-42
1 O.D. x 3 CLR	590524-48
1-1/8 O.D. x 3-3/8 CLR	590526-54
1-1/8 O.D. x 3-1/2 CLR	590526-56
1-1/4 O.D. x 3-3/4 CLR	590527-60
1-1/2 O.D. x 4-1/2 CLR	590530-72
1-1/2 O.D. x 5 CLR	590530-80

**METRIC, I.P.S. AND CUSTOM CENTER LINE RADII ARE AVAILABLE
BY SPECIAL ORDER - PLEASE CONSULT FACTORY**



MODEL 632 HEAVY DUTY HYDRAULIC TUBE BENDER

MODEL 648 HEAVY DUTY RATCHET TUBE BENDER

TOOLING

Combination Slide Blocks

3/8	8-642-7-3
1/2, 3/4, 1 & 1-1/2	520516
5/8, 7/8, 1-1/8 & 1-1/4	520518
1-3/4	8-642-7-11
2	8-642-7-12

Combination Clamp Blocks

3/8	8-642-6-3
1/2, 3/4, 1 & 1-1/2	631092
5/8, 7/8, 1-1/8 & 1-1/4	631093
1-3/4	8-642-6-11
2	8-642-6-12

Conventional Radius Blocks

3/8 O.D. x 1-1/8 CLR	590512-18
3/8 O.D. x 1-1/4 CLR	590512-20
1/2 O.D. x 1-1/4 CLR	590515-20
1/2 O.D. x 1-1/2 CLR	590515-24
5/8 O.D. x 1-1/2 CLR	590518-24
5/8 O.D. x 1-7/8 CLR	590518-30
3/4 O.D. x 1-3/4 CLR	590521-28
3/4 O.D. x 2-1/4 CLR	590521-36
7/8 O.D. x 2 CLR	590523-32
7/8 O.D. x 2-5/8 CLR	590523-42
1 O.D. x 3 CLR	590524-48
1-1/8 O.D. x 3-3/8 CLR	590526-54
1-1/8 O.D. x 3-1/2 CLR	590526-56
1-1/4 O.D. x 3-3/4 CLR	590527-60
1-1/2 O.D. x 4-1/2 CLR	590530-72
1-1/2 O.D. x 5 CLR	590530-80

Flare-End Radius Blocks

1/2 O.D. x 1-1/4 CLR	530598
5/8 O.D. x 1-1/2 CLR	530602
3/4 O.D. x 1-3/4 CLR	530606
7/8 O.D. x 2 CLR	530610
1 O.D. x 3 CLR	530614
1-1/8 O.D. x 3-1/2 CLR	530618
1-1/4 O.D. x 3-3/4 CLR	530622
1-1/2 O.D. x 5 CLR	530626

**METRIC, I.P.S. AND CUSTOM CENTER LINE RADII ARE AVAILABLE BY SPECIAL ORDER
FOR MODEL 648 TOOLING 2 THRU 3 - PLEASE CONSULT FACTORY**



MANDRELS

TO DETERMINE MANDREL PART NUMBER:

1. Calculate I.D. = O.D.- [2 x Wall Thickness]
2. Subtract "A" from the I.D. Dimension

Tube Size 1/4 thru 1 "A" = 0.005
 Tube Size 1-1/8 thru 2 "A" = 0.010

3. Example 1/2 Tube x .065 Wall

$$0.500 - [2 \times .065] = 0.370 \text{ I.D.} - .005 = 0.365 \text{ DIAMETER} = 8-154-48-.365$$

MODEL 412 MANDRELS & RELATED ITEMS

Actual Mandrel Diameter	Mandrel Part Number	Mandrel Rod	Rod Length	Adapter	Rod Stop
.175-.234	8-154-48-*	8-154-50-1	24	8-154-49-1	8-154-57
.235-.299		8-154-50-2	24	8-154-49-2	8-154-57
.300-.379		8-154-50-3	24	8-154-49-3	8-154-57
.380-.705		8-154-50-4	24	8-154-49-4	8-154-57

MODEL 420 MANDRELS & RELATED ITEMS

Actual Mandrel Diameter	Mandrel Part Number	Mandrel Rod	Rod Length	Adapter	Rod Stop
.175-.234	8-154-48-*	8-154-50-1	24	8-154-49-1	1-762-76
.235-.299		8-154-50-2	24	8-154-49-2	1-762-76
.300-.379		8-154-50-3	24	8-154-49-3	1-762-76
.380-.705		8-154-50-4	24	8-154-49-4	1-762-76
.706-1.20	9-2441-7-*	8-154-50-5	24	1-762-79-5	1-762-76

MODEL 624, 632 & 648 MANDRELS & RELATED ITEMS

Actual Mandrel Diameter	Mandrel Part Number	Mandrel Rod	Rod Length	Adapter	Rod Stop
.278-.357	9-2441-7-*	520506	87-1/2	550501	624 = 522367
.358-.479		520507	87-1/2	522398	632 = 9-262-88
.480-1.479		520508	87-1/2	522398	648 = 520500
1.480-1.979		520509	87-1/2	Not Required	

*** INSERT ACTUAL MANDREL DIAMETER AT END OF PART NUMBER**

**SINGLE-BALL AND AMPCO BRONZE MANDRELS AVAILABLE BY SPECIAL ORDER
 PLEASE CONSULT FACTORY FOR RECOMMENDATIONS**



MODEL 232 & 248 POWER TUBE END-FINISHERS

FLARING TOOLING

Flaring Head Complete with Cone 1/8 - 2 (Flaring Head 1-1/2 - 3 Consult Factory)

Standard (37 Degree)	7-553-12-1
Carbide 1/8 - 1 (37 Degree)	5-1263-10
Carbide 1-1/8 - 2 (37 Degree)	5-1263-15
Standard (45 Degree)	7-553-12-2
Carbide 1/8 - 1 (45 Degree)	5-1566-1
Carbide 1-1/8 - 2 (45 Degree)	5-1566-5

Replacement Flaring Cones Only

Standard (37 Degree)	7-452-51-1
Carbide 1/8 - 1 (37 Degree)	5-1263-11
Carbide 1-1/8 - 2 (37 Degree)	5-1263-16
Standard (45 Degree)	7-452-51-2
Carbide 1/8 - 1 (45 Degree)	5-1566-2
Carbide 1-1/8 - 2 (45 Degree)	5-1566-6

Flaring Dies

Size	37 Degree	45 Degree
1/8	7-452-10-1	7-452-10-14
3/16	7-452-10-2	7-452-10-15
1/4	7-452-10-3	7-452-10-16
5/16	7-452-10-4	7-452-10-17
3/8	7-452-10-5	7-452-10-18
1/2	7-452-10-6	7-452-10-20
5/8	7-452-10-7	7-452-10-22
3/4	7-452-10-8	7-452-10-23
7/8	7-452-10-26	7-452-10-24
1	7-452-10-9	7-452-10-25
1-1/4	7-452-10-10	7-452-10-45
1-1/2	7-452-10-11	7-452-10-47
1-3/4	7-452-10-12	7-452-10-78
2	7-452-10-13	7-452-10-79
2-1/4	590633-36	11-3069-7-36
2-1/2	590633-40	11-3069-7-40
2-3/4	590633-44	11-3069-7-44
3	590633-48	11-3069-7-48



MODEL 232 & 248 POWER TUBE END-FINISHERS (CONTINUED)

BEADER TOOLING

Beader Heads

1/4 - 1-1/2 (Models 232 & 248)	4-1954-20
1-1/2 - 3 (Model 248 Only)	9-968-1

Beader Dies (Models 232 & 248)

1/4	7-452-68-1
5/16	7-452-68-2
3/8	7-452-68-3
1/2	7-452-68-4
5/8	7-452-68-5
3/4	7-452-68-6
1	7-452-68-7
1-1/4	7-452-68-8
1-1/2	7-452-68-9

Beader Dies (Model 248 Only)

1-3/4	11-3069-6-28
2	11-3069-6-32
2-1/4	11-3069-6-36
2-1/2	11-3069-6-40
2-3/4	11-3069-6-44
3	11-3069-6-48

Bead Form Tools (Models 232 & 248)

1/4	10-1454-4
5/16	3-555-1
3/8	4-1254-17-1
1/2	4-1254-17-2
5/8	4-1254-17-3
3/4	4-1254-17-4
1thru 1-1/4	4-1954-19
1-1/2	9-554-1

Bead Form Tools (Model 248 Only)

1-3/4	590575
2	590574-1
2-1/4	590574-2
2-1/2	4-2769-1-16
2-3/4	590577
3	590578



MODEL 232 & 248 POWER TUBE END-FINISHERS (CONTINUED)

SQUARING /DEBURRING TOOLING

Squaring / Deburring Head (Less Bits)

Model 232	2-561-1
Model 248	4-465-1

Replacement Bits (All Models)

Facing Bit	2-561-7
O.D. Bit	2-561-6
I.D. Bit	2-561-14
Carbide Facing Bit	2-561-9
Carbide O.D. Bit	2-561-11
Carbide I.D. Bit	2-561-15
