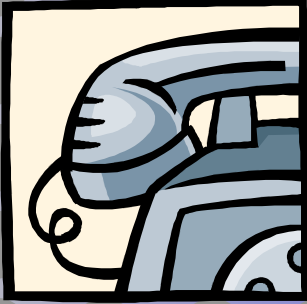


Exhaust Tooling

Catalogue

Customer Service:
Call 03 5854 6317





Contact US

Forbes & Summers
Trading as
F & S Exhaust Tools

ABN: 55 377 698 914

Postal Address:

P.O.Box 73
Girgarre 3624
Victoria, Australia

Delivery Address:

1 Winter Rd
Girgarre 3624
Victoria, Australia

Ph. 03 58546317
Fax: 03 58546667
Email:
fstools@bigpond.com

Sales Contact:

Mark Summers
Jeff Summers

Accounts:

Michelle Summers
Marjorie Summers

Distribution:

National.

Check:

Undercar Review
For the latest releases
and tool updates.



Need Help?

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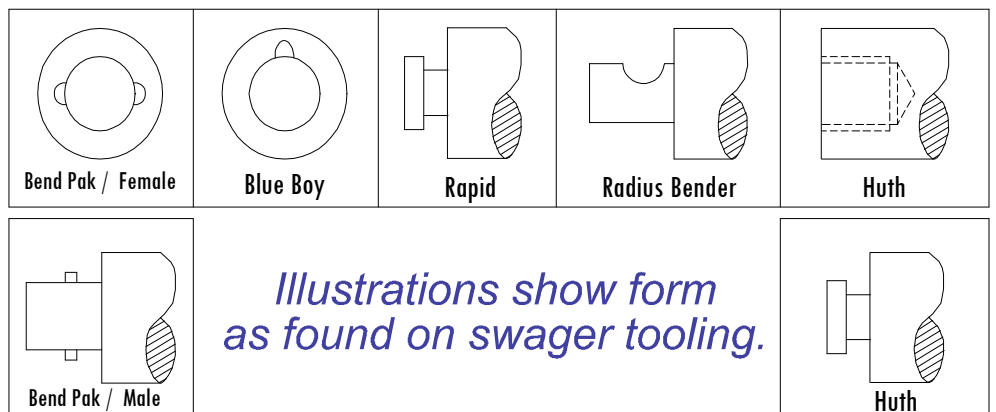
Call 03 58546317

Before you call:



To assist us in giving you a quick and accurate service, please have on hand:

- **Machine make & model if possible.**
or
- **If unsure, use table below to identify your machine. Identifying the way that the swager tooling fits to the swager ram, ie Slip twist adapter.**



*All swager tooling is illustrated without Adapter End.
Tools stocked with adapters to suit most machine makes*

The information contained in this catalogue replaces all previous publications and product sheets. All references made to other Brand names are made for tool identification purposes and all tools listed in this catalogue are manufactured by F&S Exhaust Tools with the exception of AMH Product. Prices in this catalogue are subject to change without notice.

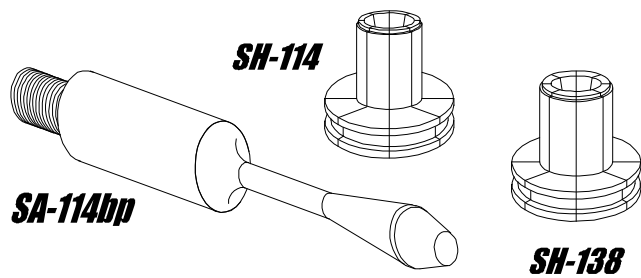
Segment Sets

Small Series Segment Sets

Part #	Description
• SH-114	1 1/4" Segment Set
• SH-138	1 3/8" Segment Set
• SA-114bp	1 1/4" Arbor

Small Series Segment Sets fit the special 1 1/4" Round arbor supplied with most machine makes as an optional extra.

*All sizes are tube ID with clearance and are designed to expand to the next segment size.

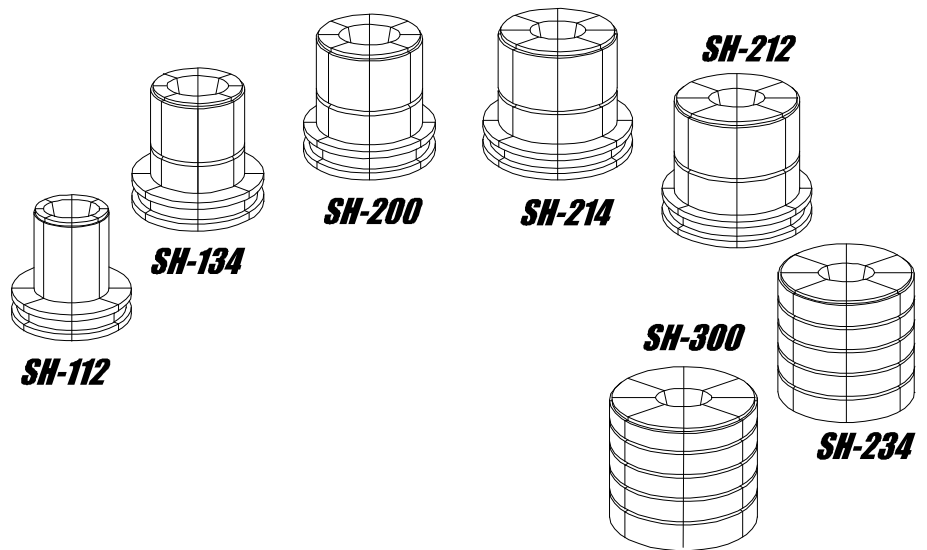


SH Series Segment Sets

Part #	Description
• SH-112	1 1/2" Segment Set
• SH-134	1 3/4" Segment Set
• SH-200	2" Segment Set
• SH-214	2 1/4" Segment Set
• SH-212	2 1/2" Segment Set
• SH-234	2 3/4" Segment Set
• SH-300	3" Segment Set

SH Series Segment Sets fit the standard 1 1/2" Round arbor supplied with most machines from std.

*All sizes are tube ID with clearance and are designed to expand 1/4" to the next segment size.



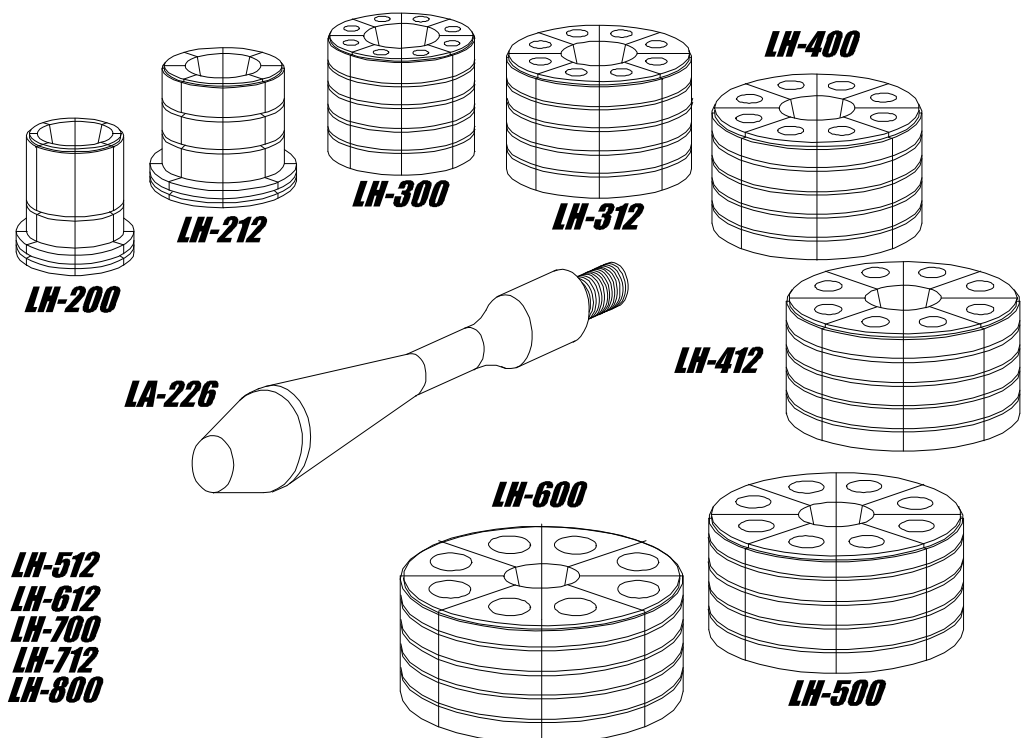
LH Series Segment Sets

Part #	Description
• LH-200	2" Segment Set
• LH-212	2 1/2" Segment Set
• LH-300	3" Segment Set
• LH-312	3 1/2" Segment Set
• LH-400	4" Segment Set
• LH-412	4 1/2" Segment Set
• LH-500	5" Segment Set
• LH-512*	5 1/2" Segment Set
• LH-600	6" Segment Set
• LH-612*	6 1/2" Segment Set
• LH-700*	7" Segment Set
• LH-712*	7 1/2" Segment Set
• LH-800*	8" Segment Set

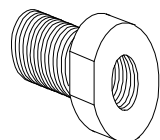
* Not illustrated

LH Series Segment Sets fit the F&S Large Round Arbor (LA-226). LA-226 supplied to fit all Machines. Sizes 3" & larger are drilled for lightness & have no rear location lip.

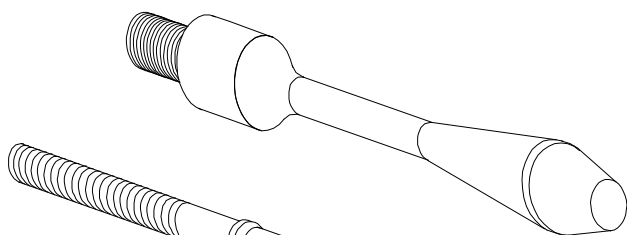
All sizes are tube ID with clearance and are designed to expand 1/2" to the next segment size.



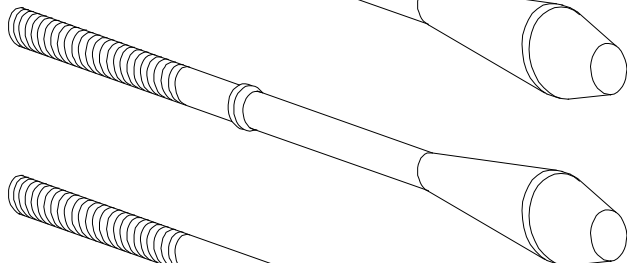
Arbors



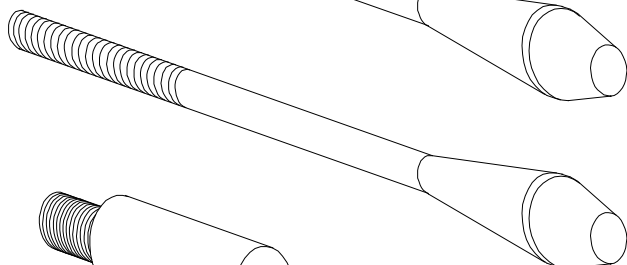
AAN-581



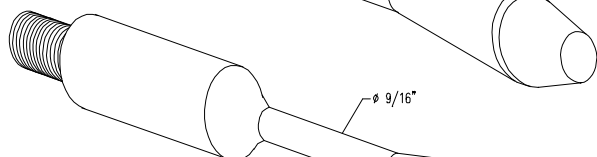
SA-112bbs



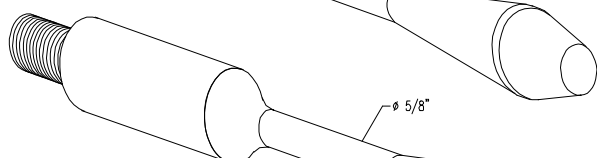
SA-112bbh



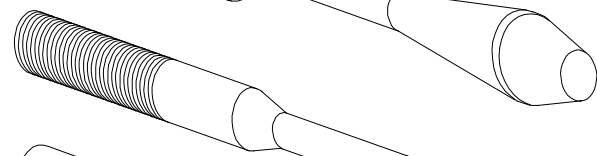
SA-112bbl



SA-112bpe



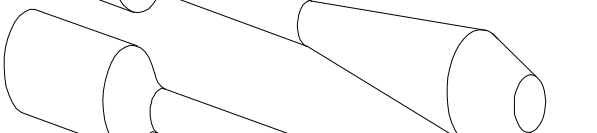
SA-112bpl



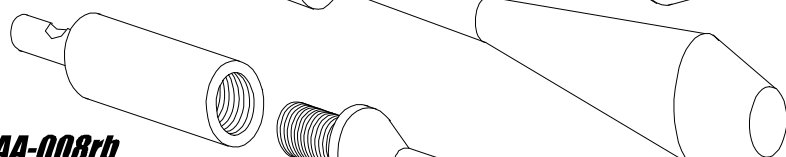
SA-112re



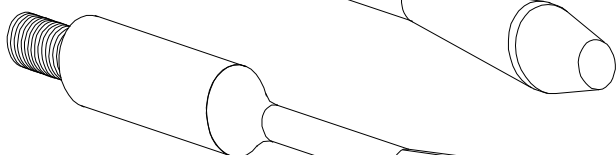
SA-508A



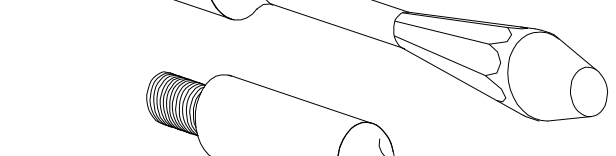
SA-508B



AA-008rb



SA-112rb



SA-112ko



SA-114bp

Replacement Arbors

Part #	Description
• SA-112bbs	1 1/2" Arbor, suit B/Boy Replaces SA-112bbl
• SA-112bbh	1 1/2" Arbor, suit B/Boy Hand Held expander unit
• SA-112bbl	1 1/2" Arbor, suit B/Boy std. Long, used with Adapter. Nut, Part# AAN-581
• SA-112bpe	1 1/2" Arbor, suit B/Pak early with 9/16" shaft.
• SA-112bpl	1 1/2" Arbor, suit B/Pak late with 5/8" shaft.
• SA-112re	1 1/2" Arbor, suit Rpd Ebind.
• SA-508A	1 1/2" Arbor 1 piece, suit Huth 508 Std size
• SA-508B	1 1/2" Arbor 1 piece, suit Huth 508 extended length
Replacement arbors for 508, 2 peice	
• SA-112rb	1 1/2" Arbor, suit R/Bender Use with AA-008rb for early models.
• SA-112ko	1 1/2" Arbor (hexagonal) suit B/Pak
• SA-112yo	1 1/2" Arbor (hexagonal) suit B/Boy
• SA-114	1 1/4" Arbor, suit B/Pak suitable for other makes.
• LA-226	Large Arbor, suits segment sets LH Series 2" - 8" Pictured opposite, LH Series

All arbors are made from the highest quality alloy steel, case hardened for long life to a minimum hardness of 58 Rc.

Arbors also made to order or adapted to fit alternate machines.

Call for Quote

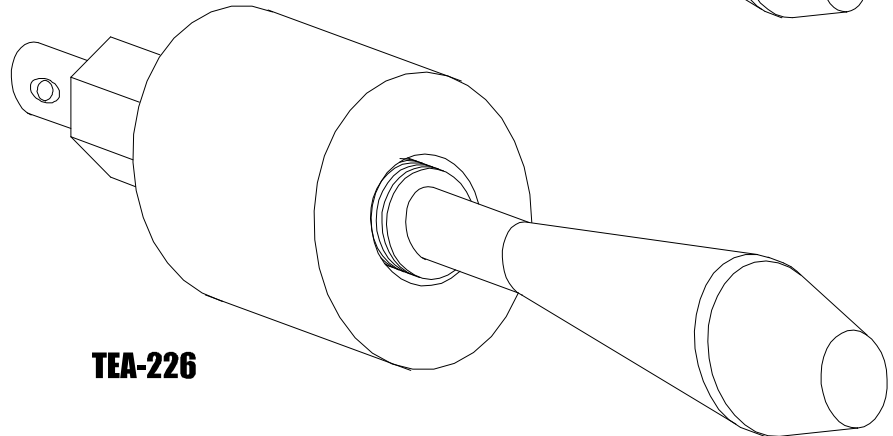
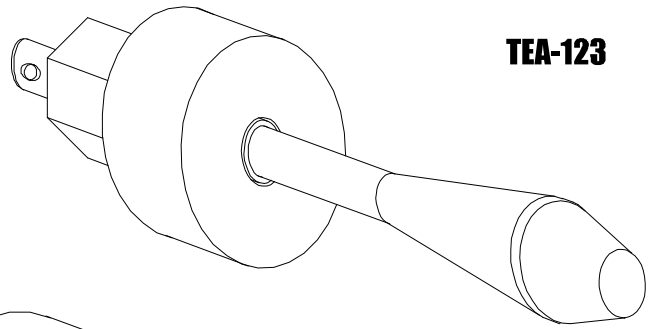
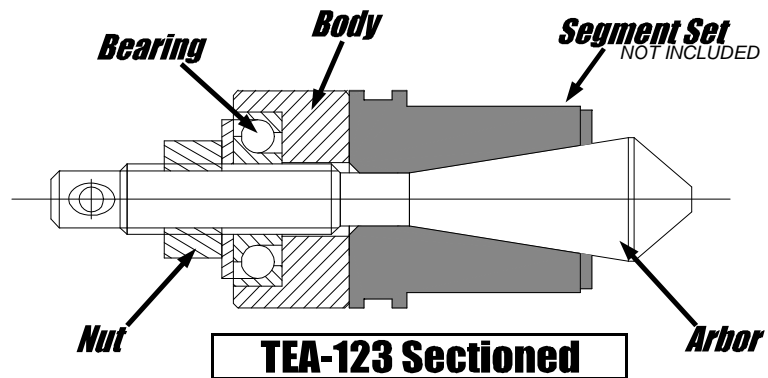
Threaded Hand Expander

Hand Expanders

- | Part # | Description |
|-------------|--|
| • TEA-123/8 | 1 1/2" - 3" Threaded Hand Expander assembly. Suit R/Bender 8 degree arbor. (segment sets NOT included) SA-112ta8 arbor replacement |
| • TEA-123/9 | 1/2" - 3" Threaded Hand Expander assembly. Suit Most popular 9° arbors. (segment sets NOT included) SA-112ta9 arbor replacement |
| • TEA-226 | 2" - 8" Threaded Hand Expander assembly, suit F&S LH Series Segment Sets (segment sets NOT included) |

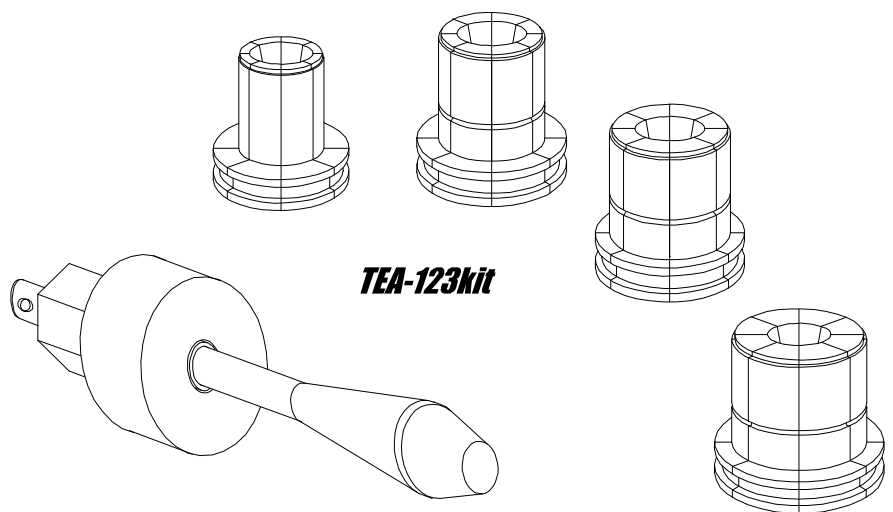
FEATURES

- ~ Made to suit the segment sets supplied with most popular machines.
- ~ Totally portable, ideal for mobile work.
- ~ **Use on car**, no need to remove exhaust system to resize crushed or out of shape joints, big time saver.
- ~ **Arbor**— Alloy steel & Case Hardened for long life.
- ~ **Nut**— High tensile, but the part that wears, cheap to replace.
- ~ **Bearing**— Single row, Angular contact ball bearing. Ideal for high axial loads.
- ~ **Fraction of cost** of Air over Hydraulic units on the market.
- ~ **Compact** to fit into those tight places.

TEA-123

TEA-226


Hand Expander Kit

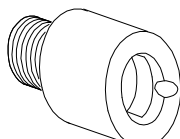
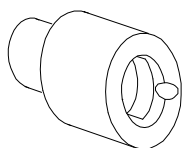
- | Part # | Includes |
|--------------|---|
| • TEA-123KIT | 1 1/2" - 3" Hand Expander
1 1/2" Segment Set
1 3/4" Segment Set
2" Segment Set
2 1/4" Segment Set |
- TEA-123KIT**
- ~ Arbor assembly and segment sets 1 1/2" to 2 1/2" ID. Kit is ideal for mobile exhaust work and expanding fuel filler necks to take ULP flap valve assembly.



Expand with F&S Exhaust Tools

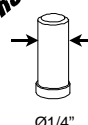
Quick Change Adapters

FTA-bby

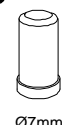


FTA-01bby

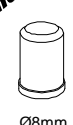
RSP-06sp



RSP-07sp



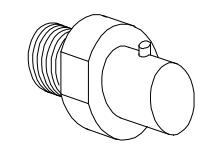
RSP-08sp



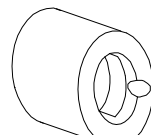
Ø1/4"

Ø7mm

Ø8mm

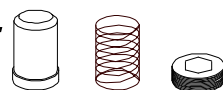


STA-08sp *



STB-14sp

RSP-KIT

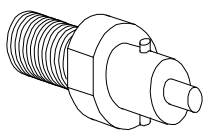


* **STA-06sp** Slip Twist Adapter (early series) takes RSP-06sp Spring Pin — Ø 6.35mm Pin
 * **STA-07sp** Slip Twist Adapter (mid series) takes RSP-07sp Spring Pin — Ø 7.0 mm Pin
 * **STA-08sp** Slip Twist Adapter (late series) takes RSP-08sp Spring Pin — Ø 7.6 mm Pin

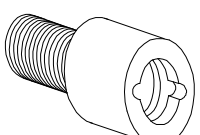
Slip Twist Adapters, B/Boy

Part #	Description
STA-08sp	Slip Twist Adapter assy, suit B/Boy spring Pin type
STB-14sp	Slip Twist Blank, suit STA-2A Weld to own tooling.
FTA-bby	Flange Tool Adapter, plain shaft
FTA-01bby	Threaded Tool Adapter, adapts threaded form tools
RSP-06sp	Replacement Spring Pin Ø1/4" ,suit STA-06sp. Early series
RSP-07sp	Replacement Spring Pin Ø 7mm ,suit STA-07sp. Common Series.
RSP-08sp	Replacement Spring Pin Ø 7.6mm ,suit STA-08sp. Late Series.
RSP-KIT	Spring Pin, Spring & Grub Screw

STA-14rps



STA-14frp



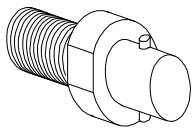
RRP-1E



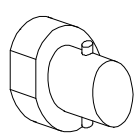
STB-14rp



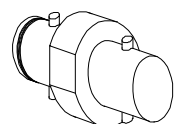
RSP-1F



STA-14rp



STB-14frp

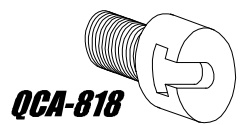


STA-EL

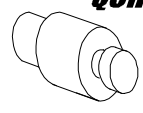
Slip Twist Adapters, B/Pak

Part #	Description
STA-14rp	Slip Twist Adapter, male Early series, 1/4" roll pin
STA-14rps	Slip Twist Adapter, as STA-1 with Flange Tool stub
STB-14rp	Slip Twist Blank, suit STA-1A Weld to own tooling.
STA-14frp	Slip Twist Adapter, female Late series
STB-14frp	Slip Twist Blank, suit STA-2A 1/4" roll pin. Weld to.
STA-EL	Adapter early to late B/Pak
RRP-1E	Replacement Roll Pin
RSP-1F	Replacement Solid Pin

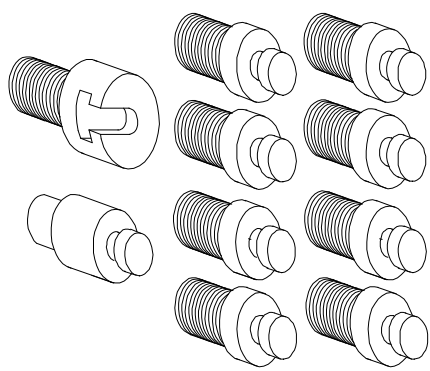
QCH-820



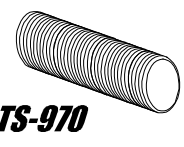
QCA-818



QCB-823



QCK-825 KIT



TS-970



KN-971

Also available for Bend Pearson

Quick Change Button Kit

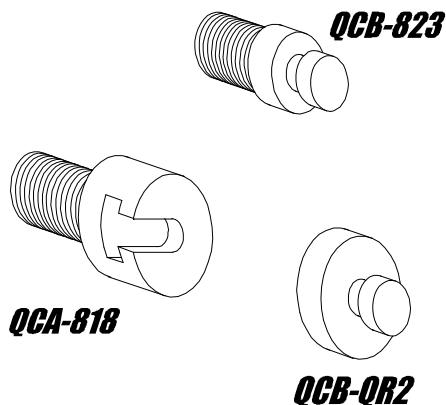
Part #	Description
QCA-818	Quick Change Adapter, suit Huth. Threaded 1" - 14 TPI
QCB-823	Quick Change Button, threaded 1" - 14 TPI
QCH-820	Quick Change Holder, suit non-threaded tooling
QCK-825	Quick Change Kit 8 x QCB-823 1 x QCA-818, 1 x QCH-820
TS-970	Threaded Stud
KN-971	Knurled Nut

Convert threaded tooling to Quick Release

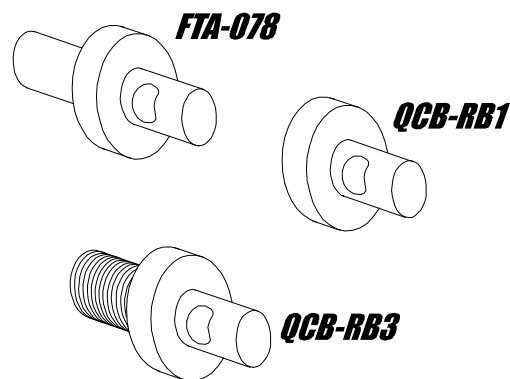
Quick Change Adapters

Quick Change Adapters

Part #	Description
QCA-818	Quick Change Adapter, suit Rpd-E/Bend
QCB-723	Quick Change Button, suit QCA-818. Weld on Tooling
QCB-823	Quick Change Button, suit QCA-818. Threaded
QCB-RB1	Quick Change Blank, suit Rad/Bender. Weld on Tooling
QCB-RB2	Quick Change Blank, suit Rad/Bender. Threaded
FTA-RB1	Flare Tool Adapter, suit Rad/Bender, Ball Flare tool



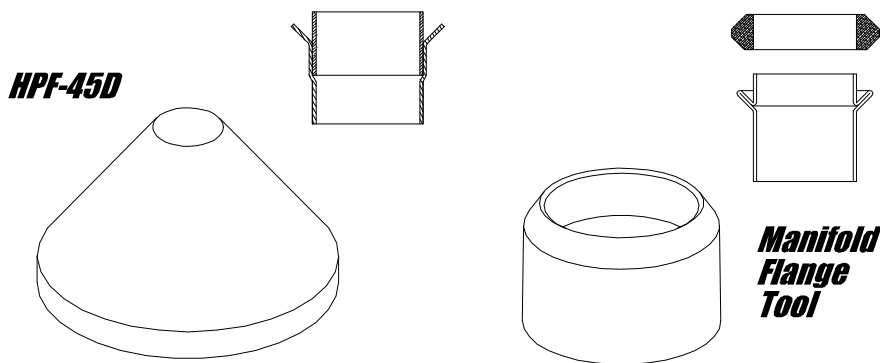
Screw or Weld
to your own tooling



Manifold Flange Tools

Part #	Description
MFT-134	Manifold Flange Tool, suit 1 3/4" tube.
MFT-178	Manifold Flange Tool, suit 1 7/8" tube.
MFT-200	Manifold Flange Tool, suit 2" tube.
MFT-214	Manifold Flange Tool, suit 2 1/4" tube.
MFT-212	Manifold Flange Tool, suit 2 1/2" tube.
HPF-45D	Head Pipe Flare Tool, 45° - 3" OD.

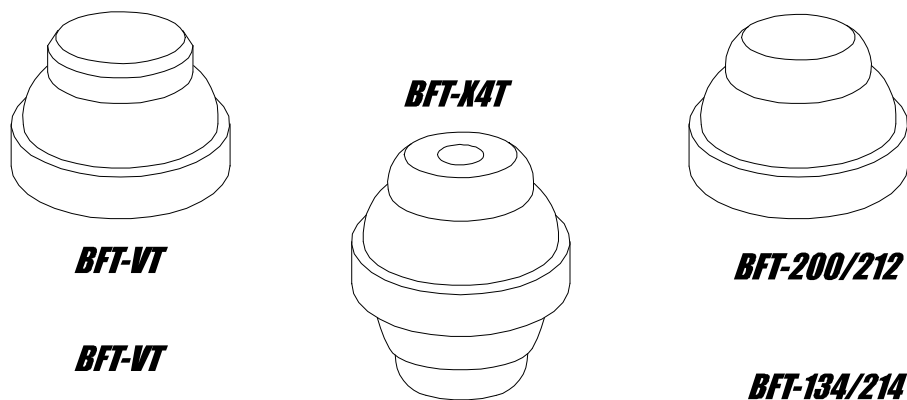
End Form Tools



* Refer Page 2 for Slip Twist style.

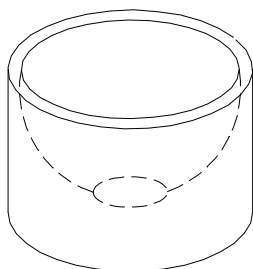
Ball Flare tools

Part #	Description
BFT-134/214	Ball Flare Tool 1 3/4" & 2 1/4"
BFT-200/212	Ball Flare Tool 2" & 2 1/2"
BFT-X4T	Ball Flare Tool 1 3/4", 2", 2 1/4" & 2 1/2". 4 in one.
BFT-VT	Ball Flare Tool, suit VT Commodore manifold pipe.
BFT-214VX	Ball Flare Tool, suit VX-VT Commodore eng. to cat. pipe

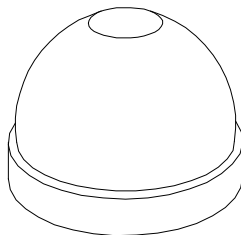


* Refer Page 2 for Slip Twist style.

End Form Tools



DD-300CC

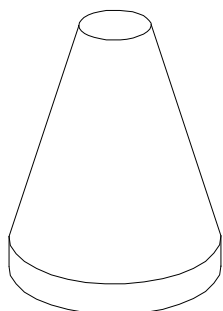


DD-300CV

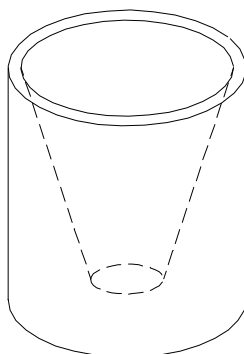
Doming Dies

Part #	Description
• DD-300CV	Doming Die 1 1/2" - 3" Convex
• DD-300CC	Doming Die 3" - 1 1/2" Concave

~ Refer to Page 2 for slip twist end .



TCE-112/300

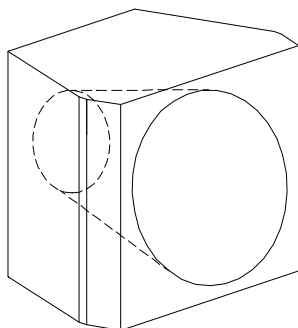


TCR-300/112

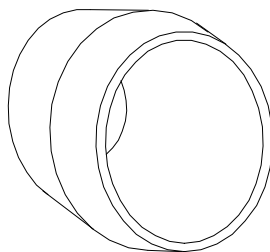
Taper Cone Dies

Part #	Description
• TCR-300/112	Taper Cone Reducer 3" - 1 1/2", 15° angle
• TCE-112/300	Taper Cone Expander 1 1/2" - 3", 15° angle

~ Refer to Page 2 for slip twist end .



BTR-3134



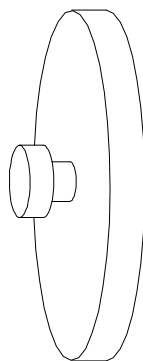
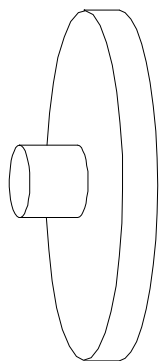
RTR-3134

Block Reducers

Part #	Description
• BTR-3134	Block Taper Reducer 3" - 1 3/4", suit B/Pak B/Bullet & Ezebend.
• RTR-3134	Round Taper Reducer 3" - 1 3/4", suit early B/Bullet & B/Boy

*Supplied with 2 x sizing washers

*Use with Collector tools



0° Flange/Press Tool

Part #	Description
FPT-ODE	0° Press Tool, stocks to suit all makes of machine specify.

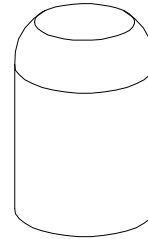
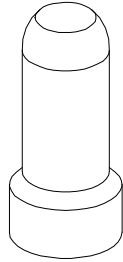
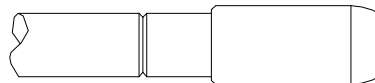
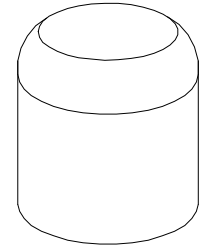
~ Refer to Page 2 for slip twist end
Use as protector for slip twist adapter whilst
pressing with non-slip twist tooling.

F&S Exhaust Tools made in Australia

End Form Tools

Solid Expander Dies

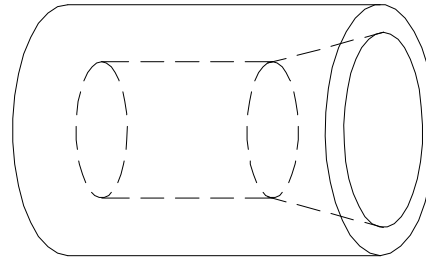
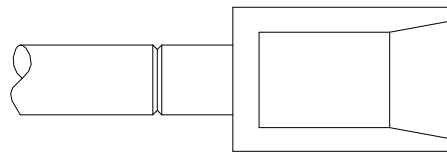
Part #	Description
• SED-100	1" Solid Expander
• SED-114	1 1/4" Solid Expander
• SED-138	1 3/8" Solid Expander
• SED-112	1 1/2" Solid Expander
• SED-158	1 5/8" Solid Expander
• SED-134	1 3/4" Solid Expander
• SED-178	1 7/8" Solid Expander
• SED-200	2" Solid Expander
• SED-218	2 1/8" Solid Expander
• SED-214	2 1/4" Solid Expander
• SED-238	2 3/8" Solid Expander
• SED-212	2 1/2" Solid Expander
• SED-234	2 3/4" Solid Expander
• SED-300	3" Solid Expander

SED-112

SED


Specify Slip Twist End Adapter

Taper Reducer Dies

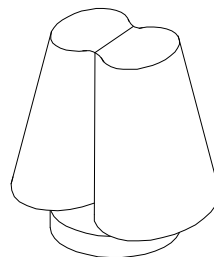
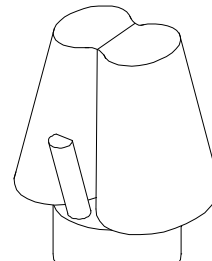
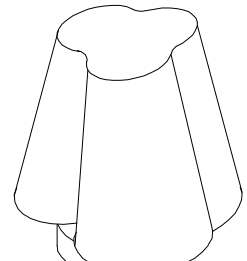
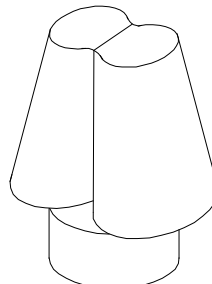
Part #	Description
• TRD-100	1" Taper Reducer Die
• TRD-114	1 1/4" Taper Reducer Die
• TRD-138	1 3/8" Taper Reducer Die
• TRD-112	1 1/2" Taper Reducer Die
• TRD-158	1 5/8" Taper Reducer Die
• TRD-134	1 3/4" Taper Reducer Die
• TRD-178	1 7/8" Taper Reducer Die
• TRD-200	2" Taper Reducer Die
• TRD-218	2 1/8" Taper Reducer Die
• TRD-214	2 1/4" Taper Reducer Die
• TRD-212	2 1/2" Taper Reducer Die
• TRD-300	3" ID Taper Reducer Die

TRD

SED-112 to 214
SED-212 to 300


Specify Slip Twist End Adapter

Collector Formers

Part #	Description
• 2CF-000	2 into 1 Collector Former flat base or slip twist
• 2CF-000F	2 into 1 Collector Former flat base or slip twist with crimping fingers
• 3CF-000	3 into 1 Collector Former flat base
• 4CF-000	4 into 1 Collector Former flat base


2CF-000
 flat base

2CF-000F

3CF-000

2CF-000S
 slip twist

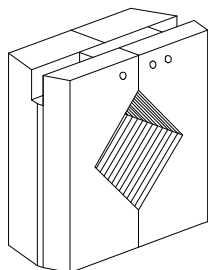
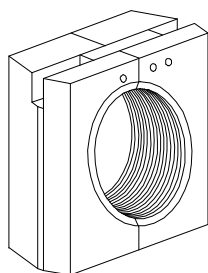
2CF-300S
 slip twist

4CF-000

* Substitute 000 for inlet tube size required
 eg. 2CF-214 > 2 1/4", 2 into 1 Collector Former

Clamp Collets

HCC

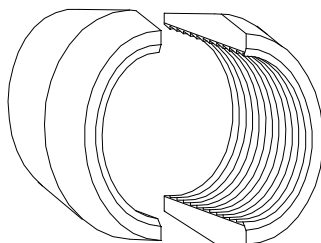
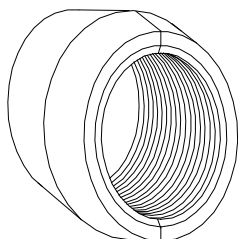


* Suits : Bend Pak
Late Blue Bullet
Rapid / Ezebend

HCC-SQU

Hinged Clamp Collets

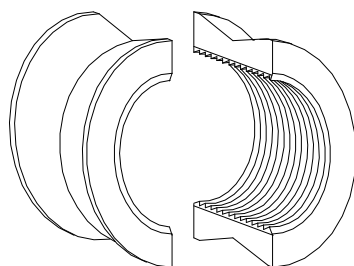
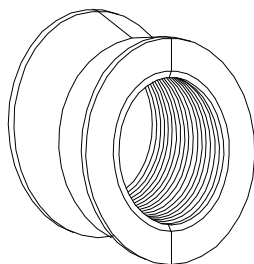
Part #	Description	Part #	Description
• HCC-100	1" Clamp	• HCC-218	2 1/8" Clamp
• HCC-114	1 1/4" Clamp	• HCC-214	2 1/4" Clamp
• HCC-138	1 3/8" Clamp	• HCC-212	2 1/2" Clamp
• HCC-112	1 1/2" Clamp	• HCC-300	3" Clamp
• HCC-158	1 5/8" Clamp	• HCC-CHS	CHS tube
• HCC-134	1 3/4" Clamp	• HCC-RHS	RHS tube
• HCC-178	1 7/8" Clamp	Suits : BendPak, Blue Bullet Rapid/EzeBend	
• HCC-200	2" Clamp		



* Suits : Blue Boy &
Early Blue Bullet

Round Clamp Collets

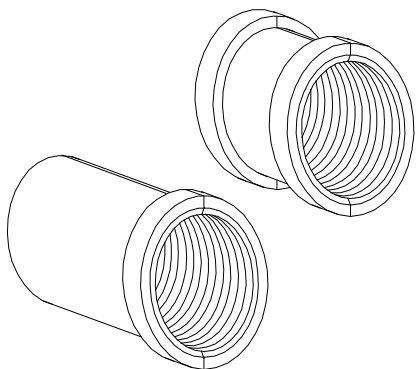
Part #	Description	Part #	Description
• RCC-100	1" Clamp	• RCC-218	2 1/8" Clamp
• RCC-114	1 1/4" Clamp	• RCC-214	2 1/4" Clamp
• RCC-138	1 3/8" Clamp	• RCC-212	2 1/2" Clamp
• RCC-112	1 1/2" Clamp	• RCC-300	3" Clamp
• RCC-158	1 5/8" Clamp	• RCC-CHS	CHS tube
• RCC-134	1 3/4" Clamp	• RCC-RHS	RHS tube
• RCC-178	1 7/8" Clamp	Suits : Early Blue Boy, Blue Bullet	
• RCC-200	2" Clamp		



* Suits late Huth
* Other Clamps
available to suit Huth

Round Collets, suit Huth

Part #	Description	Part #	Description
• RHC-100	1" Clamp	• RHC-218	2 1/8" Clamp
• RHC-114	1 1/4" Clamp	• RHC-214	2 1/4" Clamp
• RHC-138	1 3/8" Clamp	• RHC-212	2 1/2" Clamp
• RHC-112	1 1/2" Clamp	• RHC-300	3" Clamp*
• RHC-158	1 5/8" Clamp	• HCH-892	3" Holder
• RHC-134	1 3/4" Clamp	• RHC-CHS	CHS tube
• RHC-178	1 7/8" Clamp	• RHC-RHS	RHS tube
• RHC-200	2" Clamp	* Requires HCH-892 Collet Holder	



* Available to Suit:
Blue Boy,
Radius Bender,
Advance Aust.
Huth
Specify type

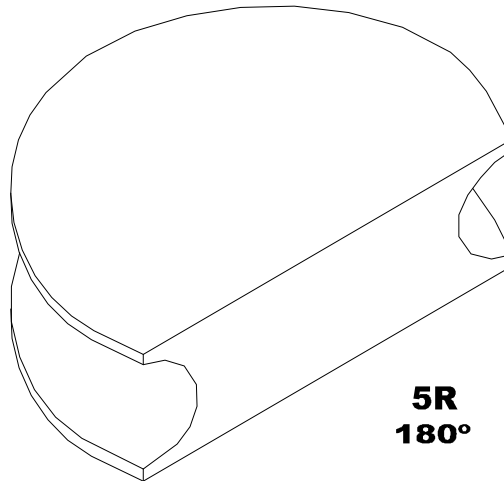
Straight Clamp Collets

Part #	Description	Part #	Description
• SCC-100	1" Clamp	• SCC-218	2 1/8" Clamp
• SCC-114	1 1/4" Clamp	• SCC-214	2 1/4" Clamp
• SCC-138	1 3/8" Clamp	• SCC-212	2 1/2" Clamp
• SCC-112	1 1/2" Clamp	• SCC-CHS	CHS tube
• SCC-158	1 5/8" Clamp	• SCC-RHS	RHS tube
• SCC-134	1 3/4" Clamp	Suits : Radius Bender, B/Boy Huth, Advance Aust.	
• SCC-178	1 7/8" Clamp		
• SCC-200	2" Clamp		

Bend Dies

5"/180° Radius Dies

Part #	Size
• 5R-112/180°	1 1/2"
• 5R-158/180°	1 5/8"
• 5R-134/180°	1 3/4"
• 5R-178/180°	1 7/8"
• 5R-200/180°	2"
• 5R-218/180°	2 1/8"
• 5R-214/180°	2 1/4"
• 5R-214HD /180°	2 1/4" / 4" Thick
• 5R-212/180°	2 1/2"
• 5R-212HD /180°	2 1/2" / 4" Thick

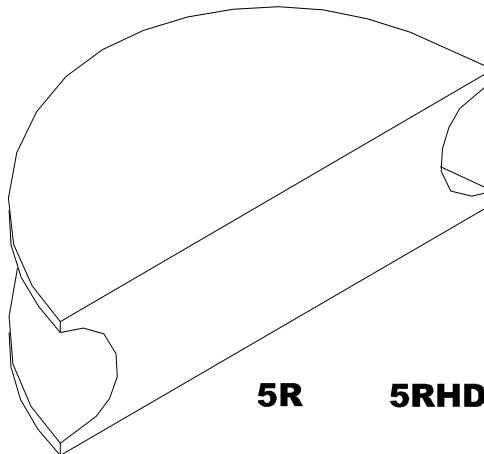


5R
180°

*Specify machine make for correct fitting

5" Radius Dies

Part #	Size
• 5R-112	1 1/2"
• 5R-158	1 5/8"
• 5R-134	1 3/4"
• 5R-178	1 7/8"
• 5R-200	2"
• 5R-218	2 1/8"
• 5R-214	2 1/4"
• 5R-214HD	2 1/4" / 4" Thick
• 5R-212	2 1/2"
• 5R-212HD	2 1/2" / 4" Thick



5R **5RHD**

*Specify machine make for correct fitting

CHS

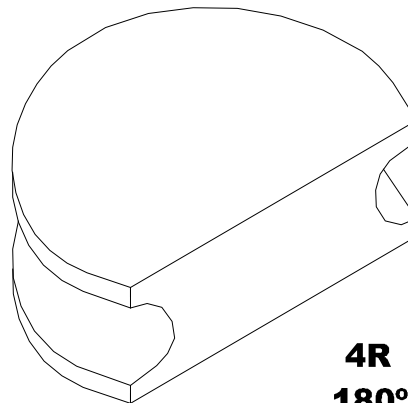
Part #	Size
• 5R-032	32 NB / 42.4mm OD
• 5R-040	40 NB / 48.3mm OD
• 5R-050	50 NB / 60.3mm OD

RHS

• S5R-035	35mm x 35mm
• S5R-040	40mm x 40mm

4"/180° Radius Dies

Part #	Size
• 4R-112/180°	1 1/2"
• 4R-158/180°	1 5/8"
• 4R-134/180°	1 3/4"
• 4R-178/180°	1 7/8"
• 4R-200/180°	2"
• 4R-218/180°	2 1/8"
• 4R-214/180°	2 1/4"
• 4R-214HD /180°	2 1/4" / 4" Thick
• 4R-212/180°	2 1/2"
• 4R-212HD /180°	2 1/2" / 4" Thick



4R
180°

*Specify machine make for correct fitting

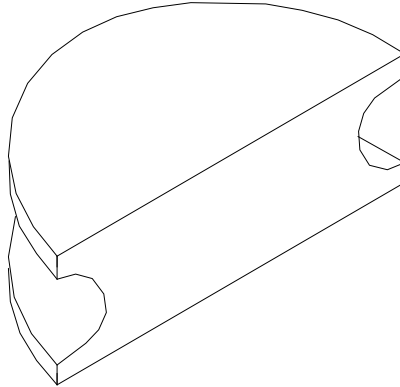
Bend Dies

CHS

Part #	Size	*
• 4R-020	20 NB / 26.9mm OD	
• 4R-025	25 NB / 33.7mm OD	
• 4R-032	32 NB / 42.4mm OD	
• 4R-040	40 NB / 48.3mm OD	
• 4R-050	50 NB / 60.3mm OD	

RHS

- S4R-025 25mm x 25mm
- S4R-030 30mm x 30mm
- S4R-035 35mm x 35mm
- S4R-040 40mm x 40mm



4R

4RHD

*Specify machine make for correct fitting

4" Radius Dies

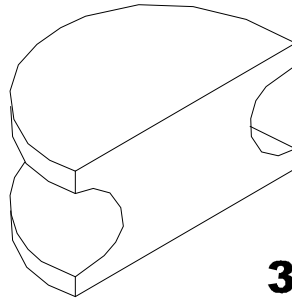
Part #	Size
• 4R-100	1"
• 4R-114	1 1/4"
• 4R-138	1 3/8"
• 4R-112	1 1/2"
• 4R-158	1 5/8"
• 4R-134	1 3/4"
• 4R-178	1 7/8"
• 4R-200	2"
• 4R-218	2 1/8"
• 4R-214	2 1/4"
• 4R-214HD	2 1/4" / 4" Thick
• 4R-212	2 1/2"
• 4R-212HD	2 1/2" / 4" Thick

CHS

Part #	Size
• 35R-020	20 NB / 26.9mm OD
• 35R-025	25 NB / 33.7mm OD
• 35R-032	32 NB / 42.4mm OD
• 35R-040	40 NB / 48.3mm OD

RHS

- S35R-025 25mm x 25mm
- S35R-030 30mm x 30mm
- S35R-035 35mm x 35mm



35R

*Specify machine make for correct fitting

3.5" Radius Dies

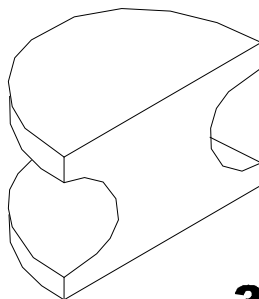
Part #	Size
• 3.5R-100	1"
• 3.5R-114	1 1/4"
• 3.5R-138	1 3/8"
• 3.5R-112	1 1/2"
• 3.5R-158	1 5/8"
• 3.5R-134	1 3/4"
• 3.5R-178	1 7/8"
• 3.5R-200	2"

CHS

Part #	Size
• 3R-008	8 NB / 13.5mm OD
• 3R-010	10 NB / 17.2mm OD
• 3R-015	15 NB / 21.3mm OD
• 3R-020	20 NB / 26.9mm OD

RHS

- S3R-008 8mm x 8mm
- S3R-015 15mm x 15mm
- S3R-020 20mm x 20mm



3R

*Specify machine make for correct fitting

3" Radius Dies

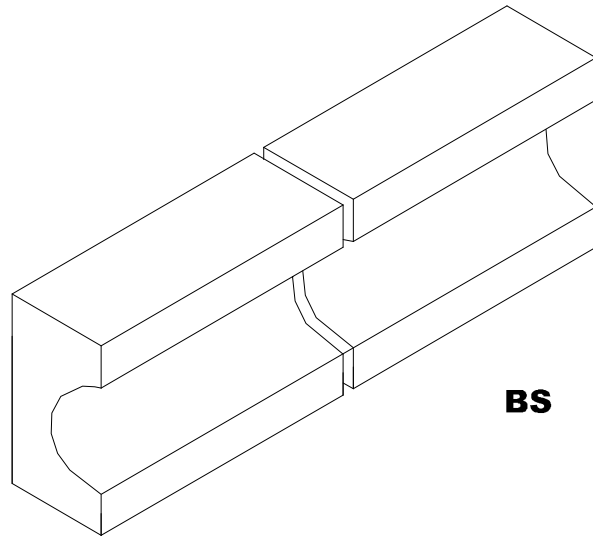
Part #	Size
• 3R-100	1"
• 3R-114	1 1/4"
• 3R-138	1 3/8"
• 3R-112	1 1/2"
• 3R-158	1 5/8"
• 3R-134	1 3/4"
• 3R-178	1 7/8"
• 3R-200	2"

Back Shoes

Back Shoes

Part #	Size
• BS-100	1"
• BS-114	1 1/4"
• BS-138	1 3/8"
• BS-112	1 1/2"
• BS-158	1 5/8"
• BS-134	1 3/4"
• BS-178	1 7/8"
• BS-200	2"
• BS-218	2 1/8"
• BS-214	2 1/4"
• BS-214HD	2 1/4" / 4" Thick
• BS-212	2 1/2"
• BS-212HD	2 1/2" / 4" Thick

* Sizes are imperial outside diameter tube. Metric available on request.

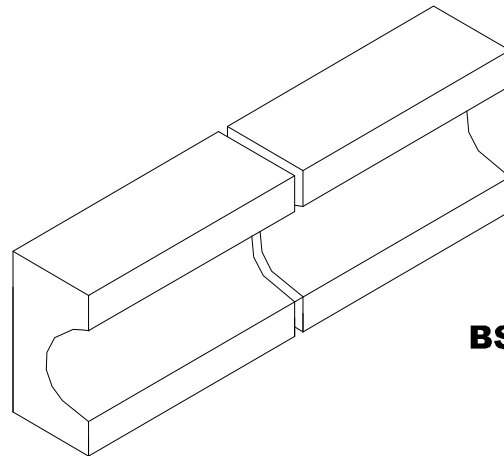
**BS****BS -HD**

*Specify machine make for correct fitting—Pins supplied

CHS Back Shoes

Part #	Size
• BS-008NB	8mm NB / 13.5mm OD
• BS-010NB	10mm NB / 17.2mm OD
• BS-015NB	15mm NB / 21.3mm OD
• BS-020NB	20mm NB / 26.9mm OD
• BS-025NB	25mm NB / 33.7mm OD
• BS-032NB	32mm NB / 42.4mm OD
• BS-040NB	40mm NB / 48.3mm OD
• BS-050NB	50mm NB / 60.3mm OD

* Sizes are for Nominal Bore tube. OD sizes are actual Outside Diameter

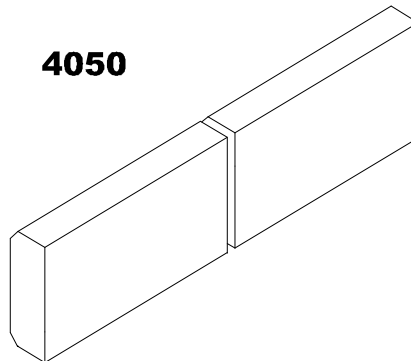
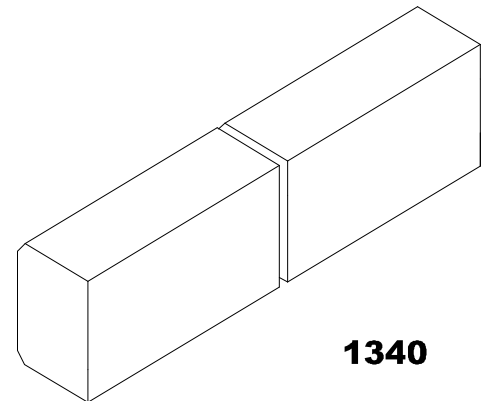
**BS**

*Specify machine make for correct fitting—Pins supplied

RHS Back Shoes

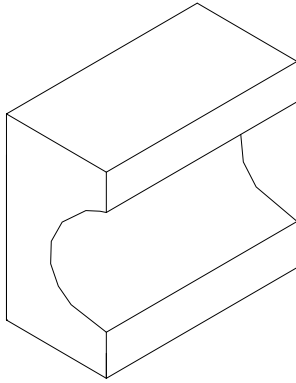
Part #	Size
• SBS-34R	suit, 3" - 4" Radius Dies
• SBS-45R	suit, 4" - 5" Radius Dies

* Sizes are for Rectangular Hollow Section & fit to all sizes of tube. Full form of tube is in Die

**4050****1340**

*Specify machine make for correct fitting—Pins supplied

Three Quarter Shoes



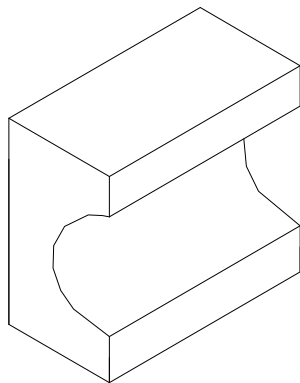
TQS TQS -HD

*Specify machine make for correct fitting—Pins supplied

Three Quarter Shoes

Part #	Size
• TQS-100	1"
• TQS-114	1 1/4"
• TQS-138	1 3/8"
• TQS-112	1 1/2"
• TQS-158	1 5/8"
• TQS-134	1 3/4"
• TQS-178	1 7/8"
• TQS-200	2"
• TQS-218	2 1/8"
• TQS-214	2 1/4"
• TQS-214HD	2 1/4" / 4" Thick
• TQS-212	2 1/2"
• TQS-212HD	2 1/2" / 4" Thick

* Sizes are imperial outside diameter tube. Metric available on request.



TQS

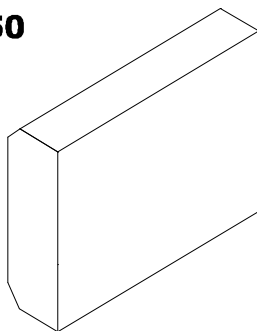
*Specify machine make for correct fitting—Pins supplied

CHS Three Quarter

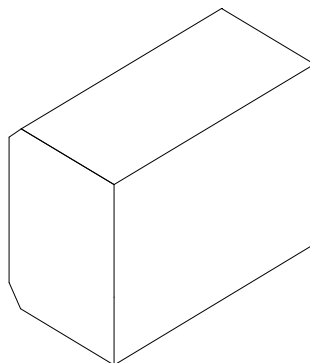
Part #	Size
• TQS-008NB	8mm NB / 13.5mm OD
• TQS-010NB	10mm NB / 17.2mm OD
• TQS-015NB	15mm NB / 21.3mm OD
• TQS-020NB	20mm NB / 26.9mm OD
• TQS-025NB	25mm NB / 33.7mm OD
• TQS-032NB	32mm NB / 42.4mm OD
• TQS-040NB	40mm NB / 48.3mm OD
• TQS-050NB	50mm NB / 60.3mm OD

* Sizes are for Nominal Bore tube. OD sizes are actual Outside Diameter

4050



1340



*Specify machine make for correct fitting—Pins supplied

RHS Three Quarter

Part #	Size
• STQS-34R	3" - 4" Radius Dies
• STQS-45R	4" - 5" Radius Dies

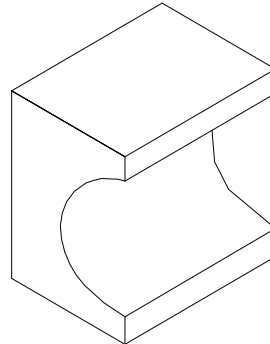
* Sizes are for Rectangular Hollow Section & fit to all sizes of tube. Full form of tube is in Die

Half Shoes

Half Shoes

Part #	Size
• HS-100	1"
• HS-114	1 1/4"
• HS-138	1 3/8"
• HS-112	1 1/2"
• HS-158	1 5/8"
• HS-134	1 3/4"
• HS-178	1 7/8"
• HS-200	2"
• HS-218	2 1/8"
• HS-214	2 1/4"
• HS-214HD	2 1/4" / 4" Thick
• HS-212	2 1/2"
• HS-212HD	2 1/2" / 4" Thick

* Sizes are imperial outside diameter tube. Metric available on request.



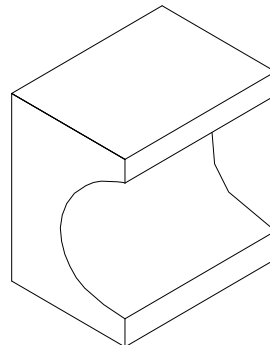
HS HS -HD

*Specify machine make for correct fitting

CHS Half Shoes

Part #	Size
• HS-008NB	8mm NB / 13.5mm OD
• HS-010NB	10mm NB / 17.2mm OD
• HS-015NB	15mm NB / 21.3mm OD
• HS-020NB	20mm NB / 26.9mm OD
• HS-025NB	25mm NB / 33.7mm OD
• HS-032NB	32mm NB / 42.4mm OD
• HS-040NB	40mm NB / 48.3mm OD
• HS-050NB	50mm NB / 60.3mm OD

* Sizes are for Nominal Bore tube. OD sizes are actual Outside Diameter



HS

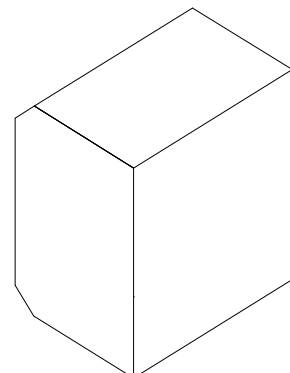
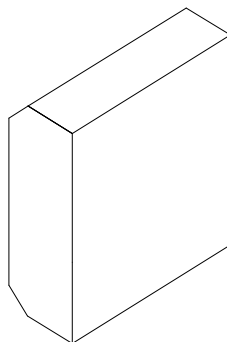
*Specify machine make for correct fitting

RHS Half Shoes

Part #	Size
• SHS-34R	suit, 3" - 4" Radius Dies
• SHS-45R	suit, 4" - 5" Radius Dies

* Sizes are for Rectangular Hollow Section & fit to all sizes of tube. Full form of tube is in Die

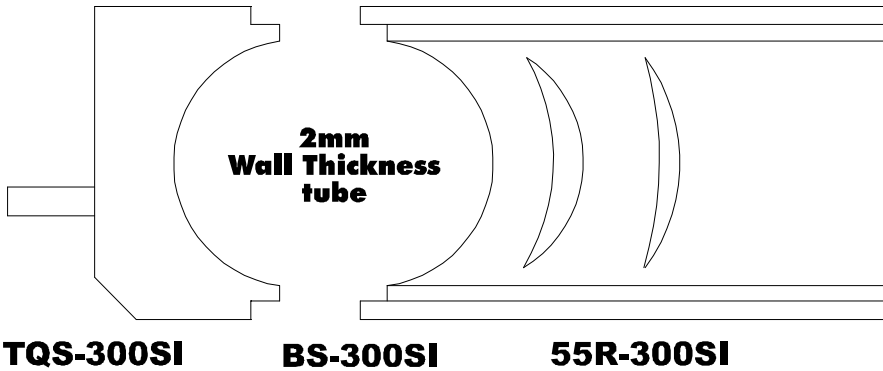
4050



1340

*Specify machine make for correct fitting

3" Bend Sets



TQS-300SI

BS-300SI

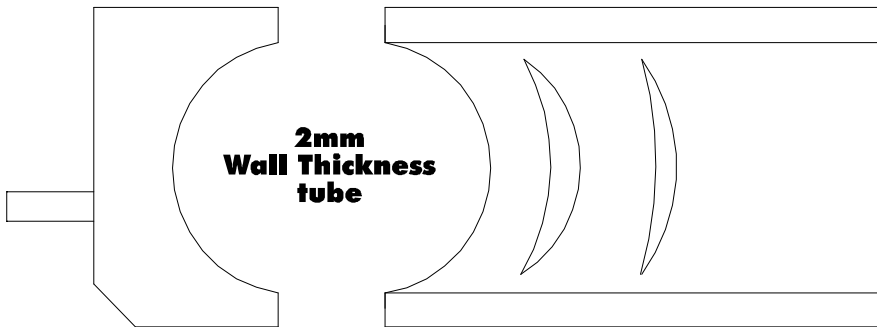
55R-300SI

**2mm
Wall Thickness
tube**

3" Bend Set suits 2.0mm WT

Part #	Size
• 55R-300SI	5.5" Radius Die, suit Ø 3" x 2mm WT tube. Scalloped & Interlocked
• BS-300SI	Back Shoes, suit 55R-300SI Radius Die
• TQS-300SI	Three Quarter Shoe, suit, 55R-300SI Die

* Suitable for bending
2.0mm & 2.5mWT tube



TQS-300S

BS-300S

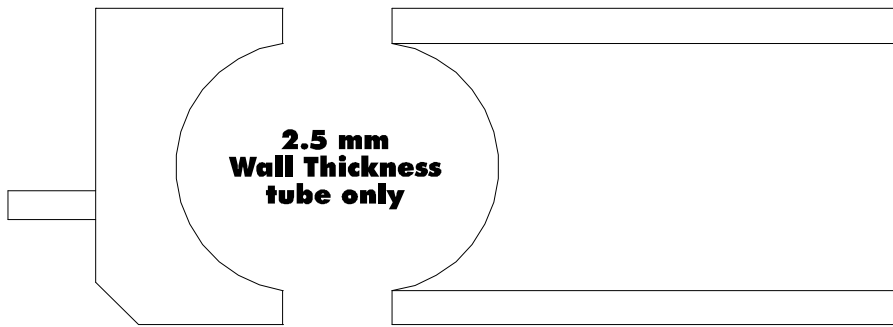
55R-300S

**2mm
Wall Thickness
tube**

3" Bend Set suits 2.0mm WT

Part #	Size
• 55R-300S	5.5" Radius Die, suit Ø 3" x 2mm WT tube. Scalloped
• BS-300S	Back Shoes, suit 55R-300S Radius Die
• TQS-300S	Three Quarter Shoe, suit, 55R-300S Die

* Suitable for bending
2.0mm & 2.5mWT tube



TQS-300H

BS-300H

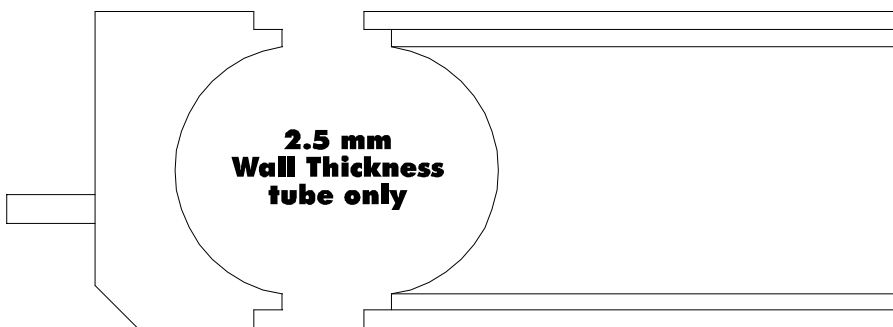
55R-300H

**2.5 mm
Wall Thickness
tube only**

3" Bend Set suits 2.5mm WT

Part #	Size
• 5R-300HT	5" Radius Die, suit Ø 3" x 2.5mm WT tube.
• BS-300HT	Back Shoes, suit 5R-300HT Radius Die
• TQS-300HT	Three Quarter Shoe, suit, 5R-300HT Die

* Suitable for bending 2.5mWT tube



TQS-300B

BS-300B

55R-300B

**2.5 mm
Wall Thickness
tube only**

3" Bend Set suits 2.5mm WT

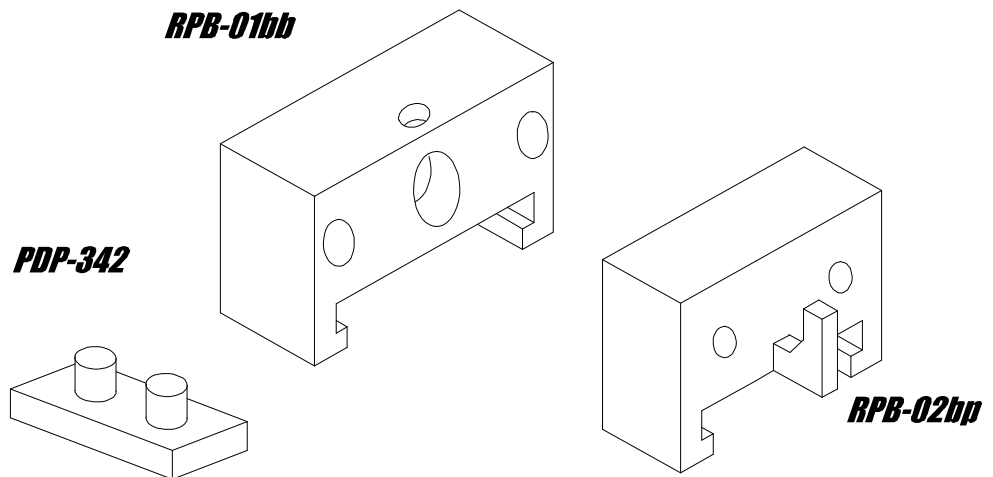
Part #	Size
• 5R-300	5" Radius Die, suit Ø 3" x 2.5mm WT tube.
• BS-300	Back Shoes, suit 5R-300 Radius Die
• TQS-300	Three Quarter Shoe, suit, 5R-300 Die

* Suitable for bending 2.5mWT tube

Bender Accessories

Press Blocks

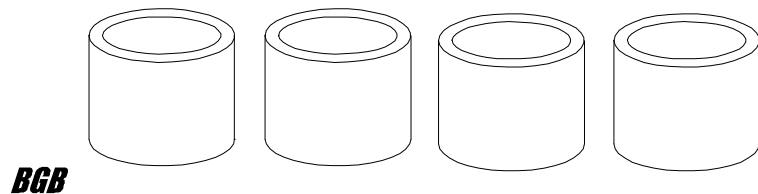
Part #	Size
RPB-01bb	Press Block, suits Blue Boy bender & radius dies
RPB-02bp	Press Block, suits Bend Pak bender & radius dies
PDP-342	Press Die Plate, suits Blue Boy Press Block
PBS-916X2	Press Block Springs, suits Bend Pak press block



Back Gate Bushes

Part #	Size
BGB-2025bb	Back Gate Bushes (4 off) suit Blue Boy back gates
BGB-2025bp	Back Gate Bushes (4 off) suit Bend Pak back gates

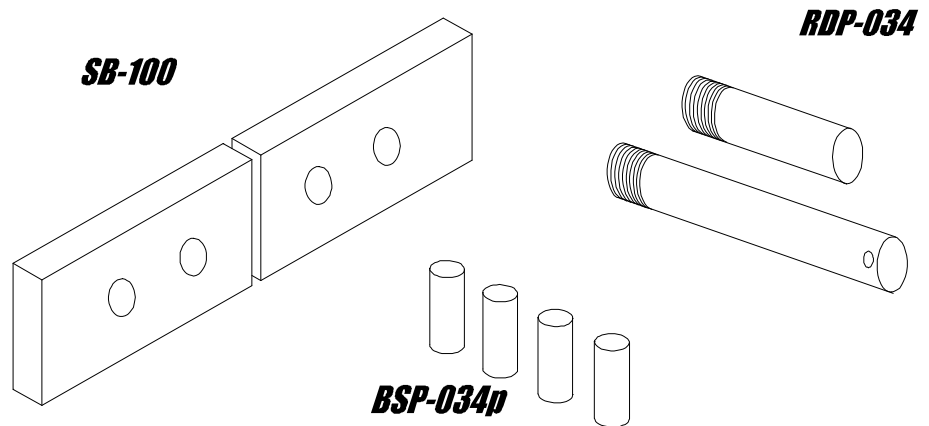
*Continuous cast LG2 Bronze



Bush Fitting tool available for Hire (deposit required)

Bend Accessories

Part #	Size
SB-100	Back Shoe Spacer Blocks 1" thick. (2 off)
RDP-034	Radius Die Pins, suit 5" Radius Dies, threaded 3/4" WHIT
BSP-034t	Back Shoe Pins, suit back shoes, threaded style
BSP-034p	Back Shoe Pins, suit back shoes, press in style

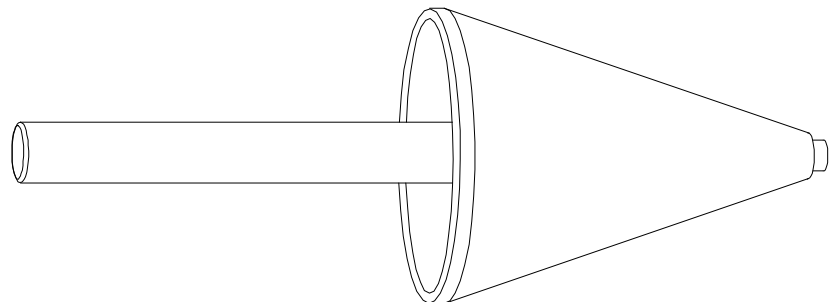


Exhaust Pipe Shaper

Part #	Description
• EPS-984	Exhaust Pipe Shaper 1 1/4" - 3 1/2" Outside taper 3" - 1 1/4" Inside taper

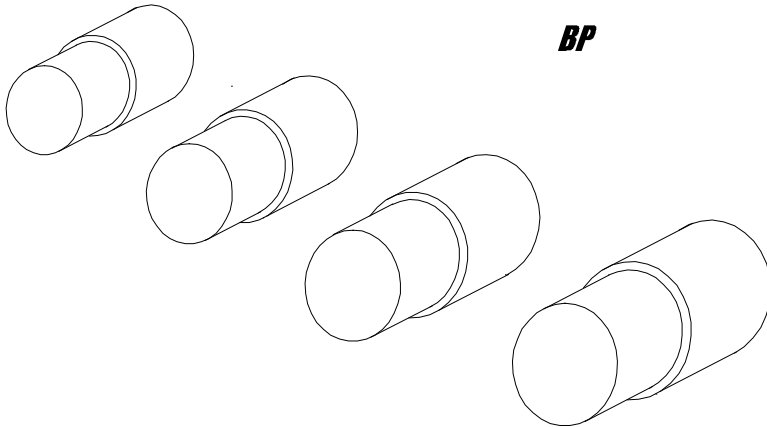
Feature

~ For use on exhaust tube up to 3" Diameter. The Exhaust Pipe Shaper is designed to repair internally or externally dented or damaged pipe or muffler ends. The



EPS-984 Exhaust Pipe Shaper

Bender Accessories

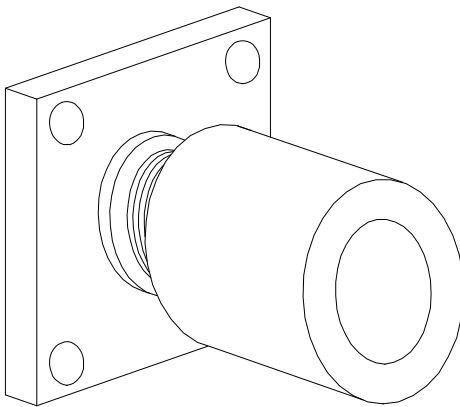


BP

Bend Plugs

Part #	Size
BP-114/138	1 1/4" & 1 3/8" tube
BP-112/158	1 1/2" & 1 5/8" tube
BP-134/178	1 3/4" & 1 7/8" tube
BP-200/218	2" & 2 1/8" tube
BP-214/212	2 1/4" & 2 1/2" tube
BP-212/300	2 1/2" & 3" tube

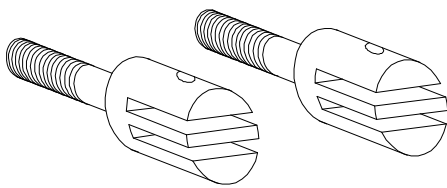
*Specify tube wall thickness



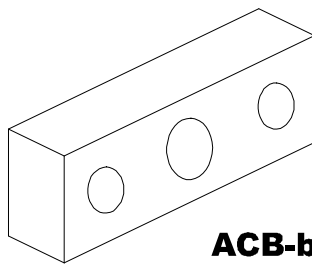
BTA

Buttress Collar Assys

Part #	Size
BTA-1bk	Buttress Thread Assembly or Adjustable Collar Assy. Replacement, suit Bend Pak & Blue Boy



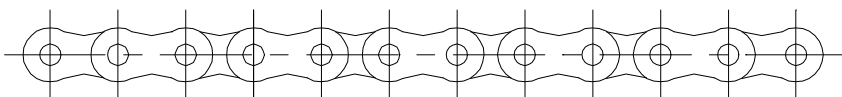
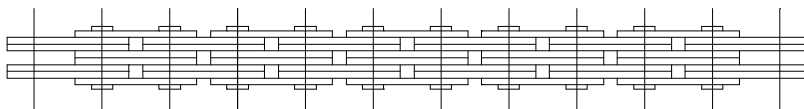
ACC-bk1



ACB-bb1

Back Gate Parts

Part #	Size
• ACC-bk1	Adjustable Chain Connector, suit Bend Pak & Blue Boy.
• ACL-bb1	Adjusting Chain Link, suit Bend Pak & Blue Boy, (1 off)
• ACL-bb2	Adjusting Chain Links, suit Bend Pak & Blue Boy, (2 off)
• ACB-bb1	Adjusting Chain Block, suit Bend Pak & Blue Boy



ACL-bb1

ACL-bb2

Blue Boy (AMH)

AMH

153MSA

HYDRA-SIZING EXPANDER
allows expanding closer to final bend.
Expands accurately to specified o.d. and i.d.

Please enquire
about Model Range



Blue Boy

GRIPPER CLAMP
EXPANDER
and Hydra-Sizer
combined in two-
way expander

SYNCHRONIZED BACK GATES
need less maintenance,
make more uniform bends

AUTOMATIC CONTROL
is recessed, uses 24-volt
system for more safety

BACK GATES CYLINDER
is bottom-mounted to eliminate
interference with tubing...
a Blue Boy first.

Specifications:

Motor: 5-hp-415V, 50Hz, 3 phase
Bend Capacity: 3/4" - 3"
Swager Capacity: 3/4" - 3"
Hydra-size Capacity: 1 1/4" - 6"

Tool Package:

Full Deluxe Tool Package

Optional Tooling:

3" Tool Package

STRONGER FRAME
than other benders for higher
volume, larger tube diameters

Motor available in single
or three phase

3-INCH BENDING CAPACITY

AMH top of the line tube bender, designed for High volume, high profit operation. Rugged tubular steel frame and proven design stand up to the toughest Jobs. Equipped with two expanders, our Hydra-sizer and Gripper Clamp swager. This dual expander feature lets you maintain two different set-ups without changing tooling. Available as Model 153 with 3" tooling for handling light trucks and some heavy-duty equipment. Furnished with all the features that have made the Blue Boy reputation and a full selection of tooling. Just plug it in and start bending.

Deluxe Tool Pack # 33.153.00.15

Qty	Ram Dies	Qty	Half Shoes	Qty	Gripper Collars	Qty	Segment Set
1	3535R112 1 1/2"	1	35HS112 1 1/2"	1	34GAC112 1 1/2"	1	33SSS112 1 1/2"
1*	354R158 1 5/8" *	1*	35HS158 1 5/8" *	1*	34GAC158 1 5/8" *	1*	33SSS158 1 5/8" *
1	3535R134 1 3/4"	1	35HS134 1 3/4"	1	34GAC134 1 3/4"	1	33SSS134 1 3/4"
1	354R178 1 7/8"	1	35HS178 1 7/8"	1	34GAC178 1 7/8"	1	33SSS200 2"
1	3535R200 2"	1	35HS200 2"	1	34GAC200 2"	1	33SSS214 2 1/4"
1	354R214 2 1/4"	1	35HS214 2 1/4"	1	34GAC214 2 1/4"	1	33SSS212 2 1/2"
1	355R200 2"	1	35HS212 2 1/2"	1	34GAC212 2 1/2"		
1	355R214 2 1/4"		Three Quarter Shoe		Ball Joint Tooling		Accessories
1	355R212 2 1/2"	1	35TS200 2"	1	34BMED134/ED200	1	38TR810ST Base Tray
	Back Shoes	1	35TS214 2 1/4"	1	34BMED200/ED214	1	38TT800 Top Tray
1	35BS112 1 1/2"			1	34BMED214/ED212	1	38RDI Rotation Dial
1*	35BS158 1 5/8" *		Expanding Dies	1	34BMED212/ED234	1	46.200.00.50 Manual
1	35BS134 1 3/4"	1	34ED112 1 1/2"	1	34ED134-212 Doming Die	1	38TC30 Tube Cutter
1	35BS178 1 7/8"	1*	34ED158 1 5/8" *	1	34BFED134-212 Female Exp.	1	37ORHE01 O-Ring Set
1	35BS200 2"	1	34ED134 1 3/4"			1	37ORHE02 O-Ring Set
1	35BS214 2 1/4"	1	34ED178 1 7/8"				
1	35BS212 2 1/2"						

* Part of 1 5/8" tool pack

F&S Exhaust Tools 0358 546317

Portable Car Exhaust Pipe Expander



This revolutionary new tool lets you replace worn out sections of pipe on the vehicle. The new portable Hand Expander does the work of four ordinary tools - work cheaper, faster, better. Available with 4 or 6 segment sets.

*Runs on workshop air pressure, 60 to 120 psi.
Hydraulic System Pressure 6000 psi (factory set)*

Features & Advantages

- Light weight (only 4.5 kg)
 - Compactly Built
 - Easy to operate & Portable
 - Fast (does job in 15 sec Max.)
 - Easy to set size specification
 - Portable or Bench mount
 - Eliminates need for welding
 - Gives a tight sealed joint
 - Capacity - 1 1/2" - 3"
- Flare & Ball Tooling Available

Model 2000 Hand Expander

Segment sets:
1 1/2", 1 3/4", 2", 2 1/4"

Model 2001 Hand Expander

Segment sets:
1 1/2", 1 3/4", 2", 2 1/4", 2 1/2" & 3"



Model 2000

Portable Truck Exhaust Pipe Expander



Increase:

Your productivity when replacing truck exhaust components.

Decrease:

Assembly time, no welding or hammering tube on vehicle.

Replace:

Defective parts only (pipe or muffler)

*Runs on workshop air pressure, 60 to 120 psi.
Hydraulic system pressure 6000 psi (factory set)*

Advantages

- Lower Installation costs
- Quick customer service
- Quality work
- Less welding
- Lower inventory

Truck Hand Expander

Segment sets:
3 1/2", 4" & 5"

Optional Tools

Segment sets:
3" 3 1/2", 4 1/2" & 6"



Standard Package

O-Rings

Stainless Steel


NEW


Stainless Steel O-Rings don't corrode or lose their tension. Available in a number of sizes suitable for most makes of segment sets. Order singularly, in 'make specific' sets or assortments. If unsure, size them by ordering each o-ring size for size for the diameter that they are to fit around.

Sizes Stocked

Part #	Description
OR-2520S	20mm ID x 2.5mm section. Stainless Steel O-Ring
OR-2532S	32mm ID x 2.5mm section. Stainless Steel O-Ring
OR-2540S	40mm ID x 2.5mm section. Stainless Steel O-Ring
OR-2545S	45mm ID x 2.5mm section. Stainless Steel O-Ring
OR-2550S	50mm ID x 2.5mm section. Stainless Steel O-Ring
OR-2555S	55mm ID x 2.5mm section. Stainless Steel O-Ring
OR-2560S	60mm ID x 2.5mm section. Stainless Steel O-Ring

Assortments:

ORS-25SS	Stainless Steel Assortment, 25 off
ORS-50SS	Stainless Steel Assortment, 50 off
ORS-75SS	Stainless Steel Assortment, 75 off
ORS-100SS	Stainless Steel Assortment, 100 off

These spring rings were manufactured to F&S Specifications for the specific use as segment set retaining springs. They must be fitted at 5 mm to 10 mm pre-load. If set up with too much pre load they may come apart when used.

Notes



Part #	Item Description	Date	Price Quoted

F&S Warranty Policy

F&S Exhaust Tools warrants all products manufactured by us under the F&S brand name to be free of defects in material and workmanship and further warrants that any product which fails within the warranty period; and is found upon delivery to the buyer and examination by our representative to be defective in either material or workmanship, and such defect has not been caused in the opinion of our representative by external damage, misuse, improper fitment or operation, lack of maintenance, or arising from other than normal workshop use will be replaced or rectified at the sole discretion of F&S, as follows:-

12 Months Warranty: If failure occurs within 12 months of date of sale free of charge, subject to conditions above.

The above is a voluntary statement of policies practiced by F&S Exhaust Tools. This warranty is additional to any rights applicable to consumers under statute or common law. Modification to any product voids all warranty expressed or implied.

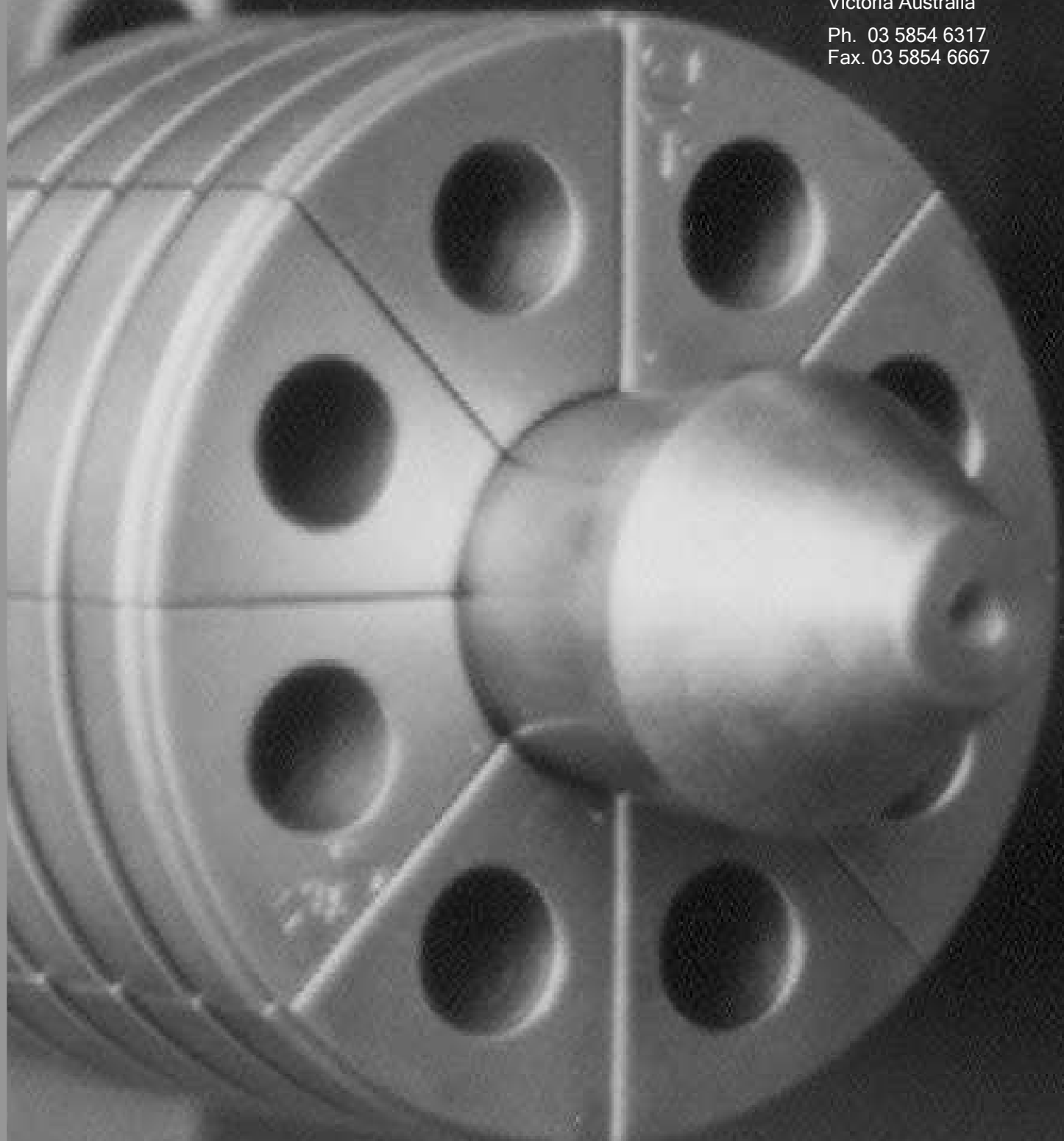
We Value Your Input

F&S are constantly looking to improve the design and quality of the tools it manufactures, therefore we would treat any tool failure at any stage of its life, reported to us, as important feedback enabling us to deliver quality workshop tried and tested tooling to you the customer.

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t/a F & S Exhaust Tools
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Made in Australia



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