ESTES

MODEL ROCKET

ACCESSORIES

FLAT CENTERING RINGS

Rings to center Estes body tubes:
BT-5 in BT-20, 50, 55, 60
BT-20 in BT-50, 55, 56, 60
BT-50 in BT-55, 60, 80
BT-55 in BT-60

Contains:
2 - die cut ring sheets
20 - RA2050, 10 - RA2055, 8 - RA2056, 10 - RA2060, 6 - RA5060, 6 - RA5080
3 - Universal paper transition sections with instructions

L'ANNEAU D'CENTRER

Bagues pour centrer les tubes de corps:
BT-5 dans le BT-20, 50, 55, 60
BT-20 dans le BT-50, 55, 56, 60
BT-50 dans le BT-55, 60, 80
BT-55 dans le BT-60

Contenu:
2 - Feuilles de bagues précoupées
20 - RA2050, 10 - RA2055, 8 - RA2056, 10 - RA2060, 6 - RA5060, 6 - RA5080
3 - Sections de transition de papier universelle avec des instructions

FLACHE ZENTRIERRINGEN

Zentrierringe für Estes Rumpfrohre:
BT-5 in BT-20, 50, 55, 60
BT-20 in BT-50, 55, 56, 60
BT-50 in BT-55, 60, 80
BT-55 in BT-60

Enthält:
2 - Blätter mit gestanzten Ringen
20 - RA2050, 10 - RA2055, 8 - RA2056, 10 - RA2060, 6 - RA5060, 6 - RA5080
3 - Universal-übergangsstücke aus starkem Papier mit Anleitung

DER GRÜNE PUNKT

EST 302295

0 47776 02295 9

(12-95)82427-30

Estes Industries, 1295 H Street, Penrose, CO USA 81240

Transition Section Instructions • Instructions pour le Section de Transition • Übergangsteil Anleitung

EST
302295
82351.30
(9-95)

To create a transiton section:

You will need an appropriately-sized tube coupler to fit the largest tube of the transition (EST 302297 or EST 303196).

Select an appropriately-sized centering ring (outside diameter to match the larger tube of the transition, inside diameter to fit the smaller tube of the transition).

Pour créer une section de transition:

Vous aurez besoin d'un accouplement de tube de taille appropriée pour s'adapter au tube le plus grand de la transition (EST 302297 ou EST 303196).

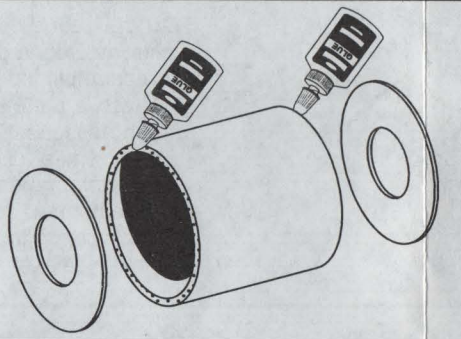
Choisir une bague de centrage de taille appropriée (le diamètre extérieur doit s'adapter à l'intérieur du tube le plus grand de la transition, le diamètre intérieur doit a'adapter sur le tube le plus petit de la transition.

Um einen Übergangsteil herzustellen, braucht man ein Kupplungsstück von genau bemessener Größe, passend für das größte der zu verbindenden Rohre (EST 302297 oder EST 303196).

Zentrierring in passender Größe auswählen (der äußere Durchmesser soll in das größere Rohr, der innere Durchmesser auf das kleinere Rohr an der Übergangsstelle passen).

1.

Apply a ring of glue around both edges of the coupler. Match outer edge of ring to the edge of the coupler. Allow to dry.



1.

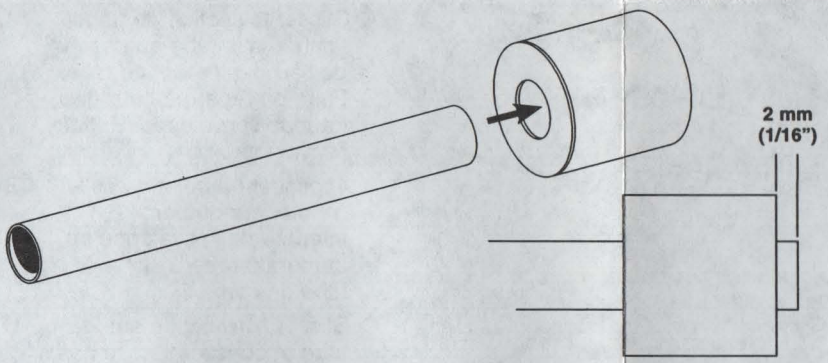
Appliquer une bague de colle autour des deux extrémités de l'accouplement. Faire coincider le bord extérieur de la bague avec le bord de l'accouplement. Laisser sécher.

1.

Einen Streifen Klebstoff um beide Kanten des Kupplungsstücks herum auftragen. Die äußere Kante des Zentrierrings an die Kante des Kupplungsstücks anpassen. Trocknen lassen.

2.

Push the smaller diameter tube through the rings until it extends about 2 mm (1/16").



2.

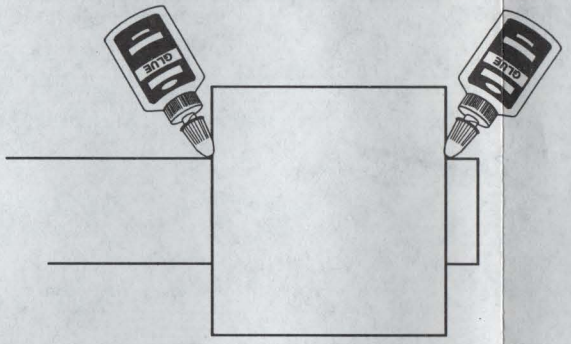
Pousser le tube de diamètre inférieur à traver les bagues jusqu'à ce qu'il s'étende jusqu'à 2 mm.

2.

Das Rohr mit dem kleineren Durchmesser so weit durch den Ring schieben, bis es 2 mm herausragt.

3.

Apply glue around the tube and ring joints.



3.

Appliquer de la colle autour du tube et du joint de bague.

3.

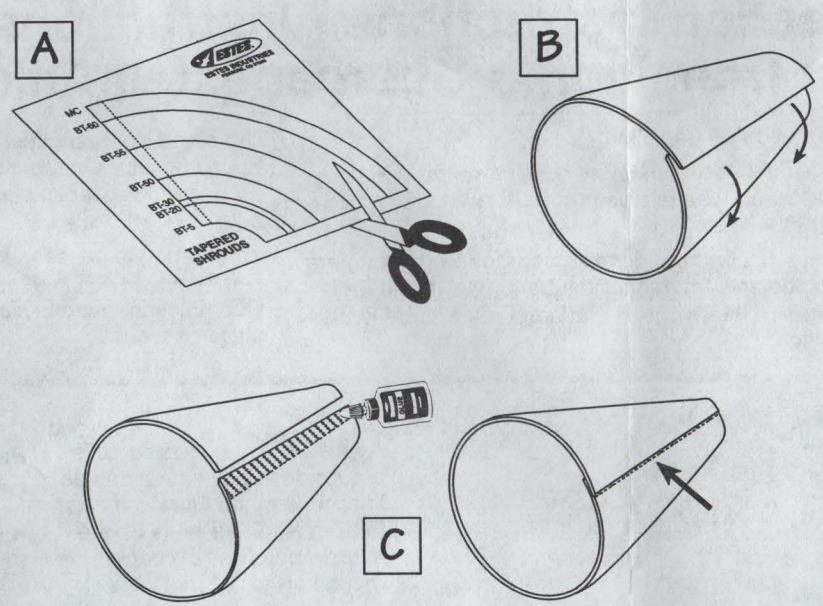
Klebstoff um das Rohr und die Ringverbindung auftragen.

4.

A. Pick the appropriate body tube sizes printed on the transition wrap and cut out on solid line. The dotted line is the glue tab.

B. Gently curl wrap a little at a time until it retains curled shape when released.

C. Apply glue to tab end and glue ends together with the glue tab underneath. Make sure the outer wrap is positioned exactly on dotted line of gluing tab. Allow to dry.



4.

A. Choisir les tailles appropriées de tubes de corps qui sont imprimées sur l'enveloppe de transition et couper sur le trait plein. Le trait en pointillé est la patte pour la colle.

B. Rouler doucement l'enveloppe, petit à petit, jusqu'à ce qu'elle retienne la forme roulée quand elle est lâchée.

C. Appliquer de la colle à l'extrémité de la patte et coller ensemble les extrémités avec la patte pour la colle en dessous. S'assurer que l'extrémité à l'extérieur de l'enveloppe est placée exactement sur le trait en pointillé de la patte pour la colle. Laisser sécher.

4.

A. Von den auf der Umhüllung des Übergangsstücks aufgedruckten Größen die passende Rumpfrohrgröße auswählen und entlang der ausgezogenen Linie ausschneiden. Die punktierte Linie ist der Klebeansatz.

B. Die Umhüllung vorsichtig, und jeweils nur ein wenig, rollen. sodaß sie beim Loslassen ihre gerollte Form behält.

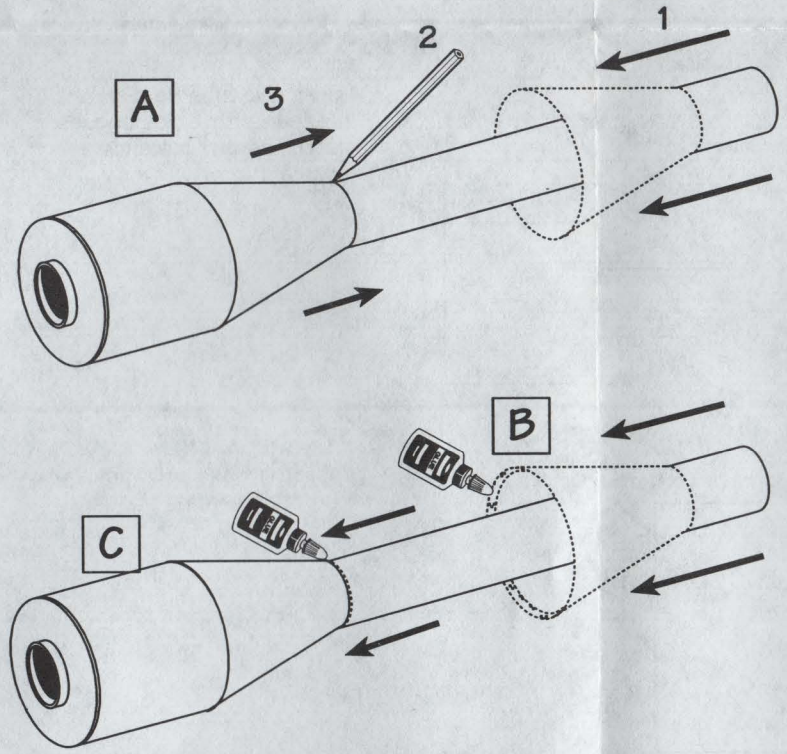
C. Klebstoff auf den Ansatz auftragen und die Enden so zusammenkleben, daß sich der Ansatz auf der Unterseite befindet. Die äußere Kante der Umhüllung muß genau auf der punktierten Linie positioniert sein. Trocknen lassen.

5.

A. Slide transition onto tube down onto tube coupler. Mark tube around the top of wrap. Remove wrap.

B. Apply a bead of glue around inside bottom edge of wrap and around the mark on the body tube.

C. Slide wrap onto tube and push down until firmly seated on coupler.



5.

A. Glisser la section de transition dans le tube au dessus de l'accouplement de tube. Faire un répère autour du haut de l'enveloppe. Retirer l'enveloppe.

B. Appliquer un point de colle à l'intérieur du bord inférieur de l'enveloppe et autour du repère sur le tube de corps.

C. Glisser l'enveloppe sur le tube et pousser vers le bas jusqu'à ce qu'elle soit fermement positionnée sur l'accouplement.

5.

A. Das Übergangsstück auf das Rohr stecken, oben auf das Kupplungsstück. Das Rohr rundherum am oberen Rand der Umhüllung markieren. Umhüllung entfernen.

B. Einen Tropfen Klebstoff am unteren Rand auf der Innenseite der Umhüllung und um die Markierung auf dem Rohr auftragen.

C. Die Umhüllung auf das Rohr schieben und herunterdrücken, bis sie fest auf dem Kupplungsstück sitzt.

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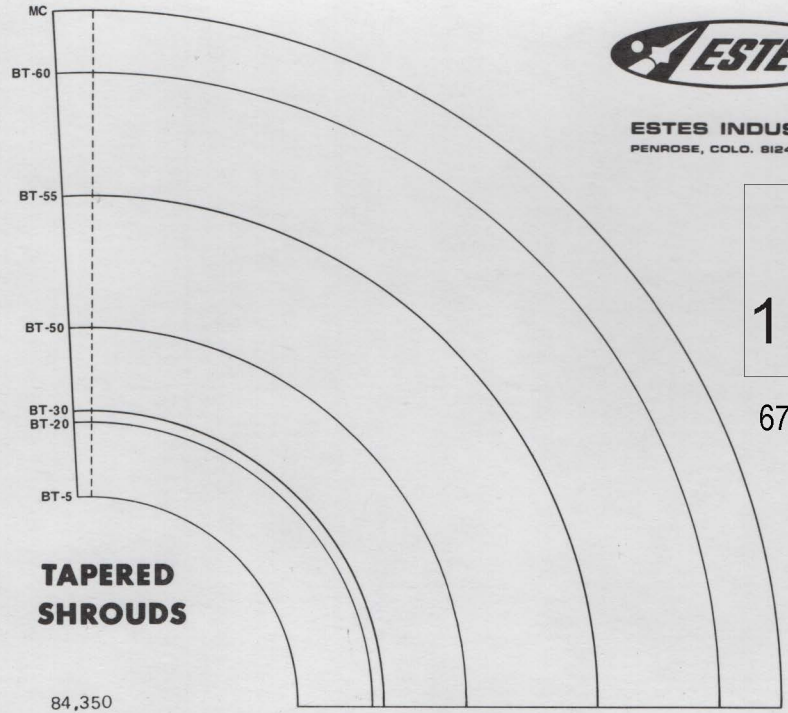


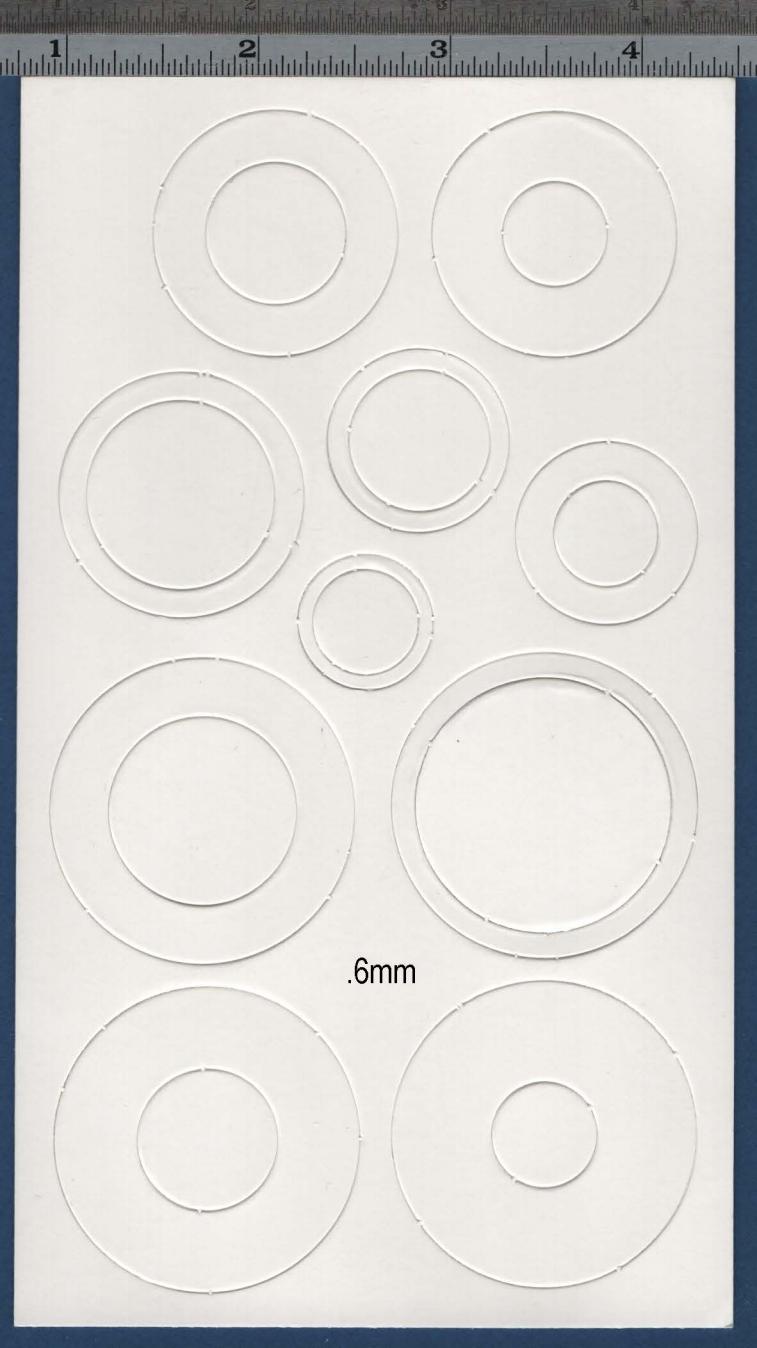
ESTES INDUSTRIES
PENROSE, COLO. 81240

1 Inch

67lb. cardstock

TAPERED SHROUDS

84,350


.6mm

5080

1.2mm

5060 1.2mm

2060

1.2mm

2050

.6mm

2055

1.2mm

1.2mm

2056

TUBE ADAPTERS

TA-1

★ UNLIMITED DESIGN POSSIBILITIES!

★ VERSATILE

★ LIGHT

ESTES

ESTES INDUSTRIES
PENROSE, COLO. 81240

ESTES

TUBE ADAPTERS

Tube Adapters:

This tube adapter kit is designed to provide neat appearing, lightweight, and easy to assemble transitions from one size body tube to another. The kit consists of two sheets of adapter discs and three universal tapered shrouds. Rings are provided for all the most popular sizes of Estes body tubes.

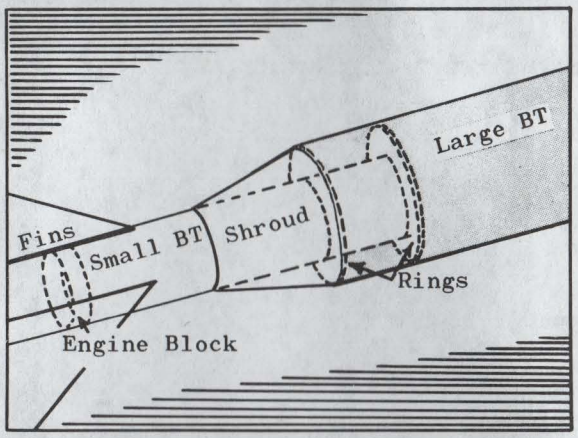
Assembly and Use Instructions

In building rockets with transitions from one size tube to another, it is necessary to design the joint so that it will be strong and rigid. First, select the two rings, one from each sheet, that match the two tube sizes. The rings will fit tightly around the smaller tube and tightly inside the larger tube.

The recommended method for making the joint is to first cut a length of the larger body tube about 1 1/2" long. Slit this piece down one side, and glue it back together with enough overlap so that it fits evenly and smoothly inside the original tube. This may be done most easily by applying the glue and then sliding the piece into a section of the full diameter tube. Remove the piece without disturbing it before the glue sets. (A stage coupler, JT-50 or JT-60, can be used in place of the 1 1/2" length of body tube. It will not be necessary to slit and glue it.)

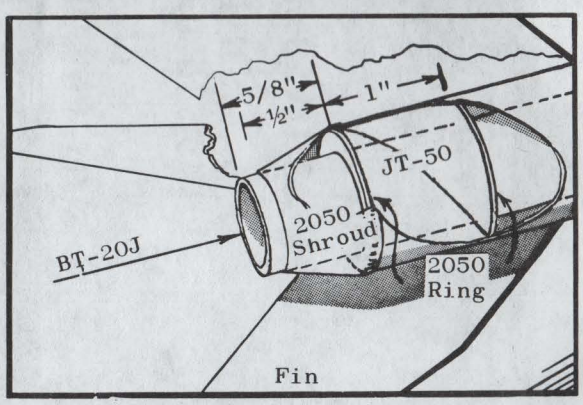
When this piece is dry, glue a ring to each end of it as in the drawing. Apply glue to the inside edges of the rings and slip the smaller body tube through the rings so it is centered by both. Make a tapered shroud by cutting it out at the lines for the smaller and larger tube sizes. Form it to its proper conical shape, with the markings on the inside. Apply glue to the

flap, and hold in place, with the joint exactly covering the flap area. When the glue has set, slip the shroud down over the smaller body tube, bring it up tightly against the adapter fitting, and apply glue to the small end only.



After the shroud has been glued in place, apply glue to the outside of the adapter fitting, and insert it into the larger body tube so that the shroud is tight against the end of the tube. Glue the edge of the shroud to the end of the body tube.

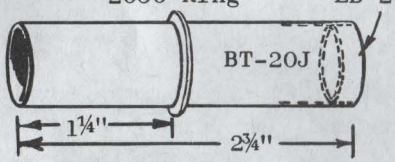
SUGGESTED APPLICATIONS



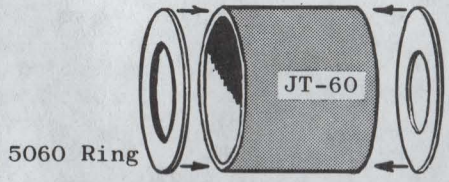
84,351

DUMMY NOZZLE UNIT

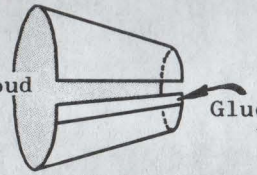
Step 1.



Step 2.

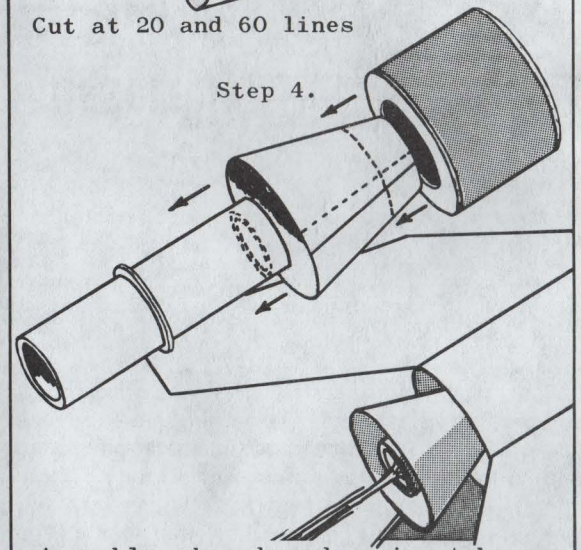


Step 3.



Cut at 20 and 60 lines

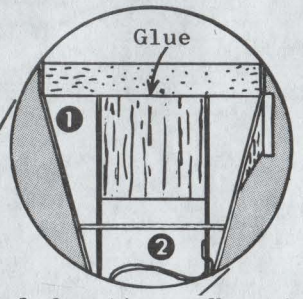
Step 4.

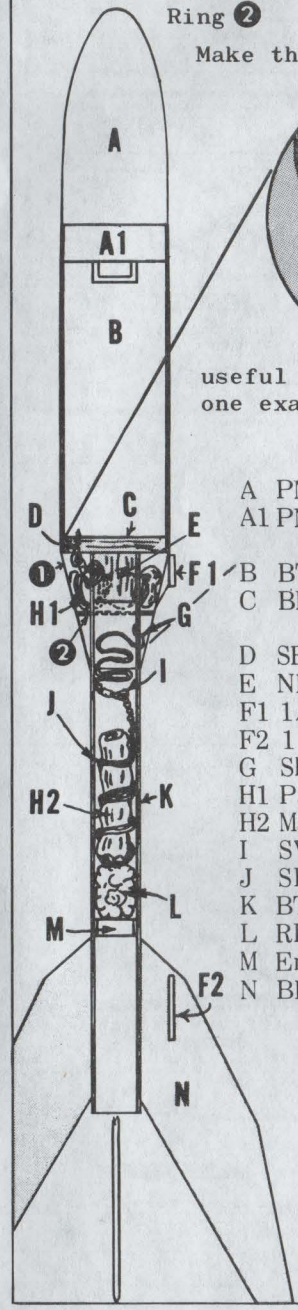


Assemble shroud and engine tube as shown. Then glue adapter assembly to shroud and tube. Let dry before placing in rocket body.

Bonus space available to you by using a 20-60 Shroud ❶ and 20-50 Spacing Ring ❷

Make that space perform a useful function. Here is one example.





PARTS LIST

- A PNC-60L Nose cone
- A1 PNCA-60L Nose cone adapter
- B BT-60R Payload section
- C BFS-80 Plug for payload section.
- D SE-2 Screw eye
- E NB-20 Nose block
- F1 1/2" launch lug
- F2 1" launch lug
- G Shock cord
- H1 Payload 'chute
- H2 Main recovery 'chute
- I SV-12 Snap swivel
- J SLT-1 Shroud line
- K BT-20 Body tube
- L RP-1 Wadding
- M Engine block
- N BFS-20 Fin material