

CABLE GLANDS



Marching towards safer future



INTRODUCTION



Jamnagar in India is known world-wide as "The Brass City". Ready availability of raw material, abundant labour and Jamnagar's casting -friendly weather have made the city, a heaven for manufacturers of brass components. It's here that **Biax Metals** has dedicated 30,000 square feet of manufacturing facilities. And devoted 20 years of professionalism for achieving specialization in Brass Electrical Components. Backed by regularly updated technology, state-of-the-art machinery and continuous research and development. With a present capacity of 1200 tones per annum, **Biax** manufactures more than 500 different types of Brass Components. [What's more, components as per your specifications can be developed, too.] The in-house extrusion plant helps the company to increase its production efficiency and execute your orders well in time. Besides implementing rigorous quality control at every stage, **Biax** infuses a very basic element of excellence in its entire range of products - A Love for Brass. Your search for perfection in brass components ends here.

(*Government approved Certificate of raw material and finished products available on request.)

A1 / A2 BRASS GLAND



A1 / A2 Brass Gland

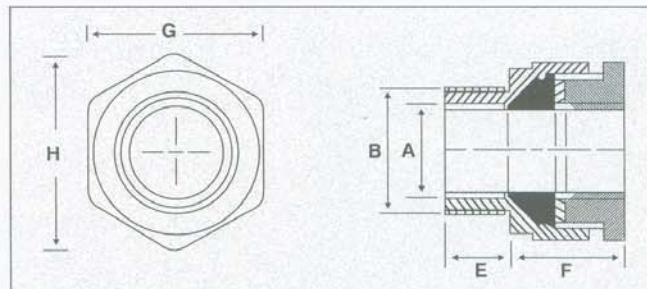
A1/A2 GLAND FOR UNARMoured CABLE

- To BS 6121 : Part 1
- Suitable for unarmoured, plastic or rubber sheathed cables
- Suitable for most indoor and outdoor applications
- Seal rated to IP66
- Finish : Natural Brass and also available in Electro Tinned and Nickel

A2 FLAMEPROOF FOR UNARMoured CABLE

As above but with these additional benefits :

- For use in Hazardous environments
- Complies with BS5501 Pt1 and Pt6
- A2F for flame proof increased safety applications
- Threads : Entry threads are metric to BS 3643 and are also available in imperial (ET)
- Also available in Aluminium (BS 1474) cable glands



ORDERING INFORMATION - CABLE AND GLAND DETAILS

COMP. NO.	SIZE	CABLE DIMENSIONS ACCOMODATED		GLAND DIMENSIONS				
		OVERALL DIAMETER A		ISO ENTRY THREAD		APPROX LENGTH FROM SHOULDER D mm	HEXAGON SIZE	
		MIN. mm	MAX. mm	DIA. B mm	LENGTH C mm		ACROSS FLATS E mm	ACROSS CORNERS F mm
BGA - 16	16	4.50	8.50	16	10	20.00	20.00	23.00
BGA - 20 S	20 S	8.00	11.50	20	10	22.00	22.00	25.00
BGA - 20	20	11.00	14.00	20	10	22.00	22.00	25.00
BGA - 25 S	25 S	14.00	17.50	25	10	25.00	30.00	34.00
BGA - 25	25	17.50	20.40	25	10	26.00	30.00	34.00
BGA - 32	32	20.00	26.00	32	10	30.00	36.00	40.00
BGA - 40 S	40 S	26.00	30.00	40	10	31.00	46.00	52.00
BGA - 40	40	30.00	33.00	40	15	31.00	46.00	52.00
BGA - 50 S	50 S	33.00	38.00	50	15	33.00	55.00	61.00
BGA - 50	50	38.00	44.00	50	15	33.00	56.00	62.00
BGA - 63 S	63 S	44.00	50.50	63	15	35.00	70.00	77.50
BGA - 63	63	50.50	56.00	63	15	35.00	70.00	77.50
BGA - 75 S	75 S	56.50	62.00	75	15	35.00	80.00	89.00
BGA - 75	75	62.00	68.00	75	15	40.00	80.00	89.00
BGA - 90	90	68.00	78.00	90	20	45.00	100.00	112.00
BGA - 100	100	78.00	88.00	100	20	45.00	112.00	125.00

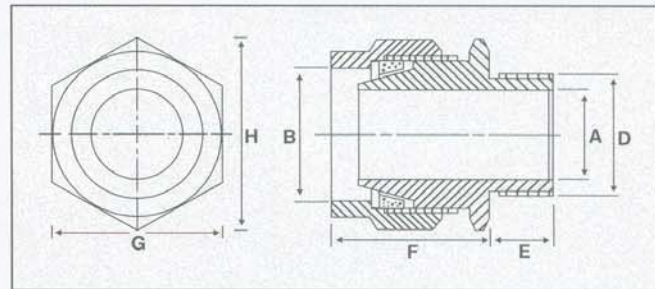
BW BRASS GLAND



BW BRASS GLAND

BW GLAND FOR SWA CABLE

- To BS 6121 : Part 1
- Suitable for single wire armoured, plastic or rubber sheathed cables
- Application - for use in dry, indoor situations
- Low cost two part design
- Shroud may be used for additional ingress protection
- IP 54
- Finish : Natural Brass and also available in Electro Tinned and Nickel
- Threads : Entry threads are metric to BS3643 and are also available in Imperial (ET)
- Also available in Aluminium (BS 1474) cable glands



ORDERING INFORMATION - CABLE AND GLAND DETAILS

Also available in CIEL (Cast Integral Earth Lug) For order Add suffix "C"

COMP. NO.	SIZE	CABLE DIMENSIONS ACCOMODATED			GLAND DIMENSIONS				
		DIAMETER		ARMOUR WIRE DIAMETER C mm	ISO ENTRY THREAD		APPROX LENGTH FROM SHOULDER F mm	HEXAGON SIZE	
		UNDER ARMOUR A MAX. mm	OVERALL B MAX. mm		DIA. D mm	LEN. E mm		ACROSS FLATS G mm	ACROSS CORNERS H mm
BGB - 16	16	8.60	13.50	0.90	16	10	21.00	20.00	23.00
BGB - 20 S	20 S	12.50	17.00	0.90 / 1.25	20	10	21.00	23.00	25.50
BGB - 20	20	14.40	20.50	0.90 / 1.25	20	10	23.00	25.00	27.30
BGB - 25 S	25 S	17.80	23.80	1.25 / 1.60	25	10	24.00	31.00	34.00
BGB - 25	25	20.40	27.00	1.25 / 1.60	25	10	26.00	34.30	38.50
BGB - 32	32	26.50	33.00	1.60 / 2.00	32	10	26.00	41.50	46.50
BGB - 40 S	40 S	31.00	37.00	1.60 / 2.00	40	10	30.00	45.00	50.00
BGB - 40	40	32.50	40.80	1.60 / 2.00	40	15	30.00	49.00	54.00
BGB - 50 S	50 S	37.80	48.00	2.00 / 2.50	50	15	32.00	58.00	65.00
BGB - 50	50	44.00	53.50	2.00 / 2.50	50	15	32.00	62.30	69.50
BGB - 63 S	63 S	50.50	60.50	2.50	63	15	35.00	70.00	78.00
BGB - 63	63	56.50	65.50	2.50	63	15	36.00	76.30	85.00
BGB - 75 S	75 S	62.50	72.00	2.50	75	15	40.00	85.00	95.00
BGB - 75	75	67.50	78.50	2.50 / 3.15	75	15	41.00	90.50	99.00
BGB - 90	90	80.00	94.00	3.15	90	20	42.00	112.00	125.00

CW BRASS GLAND



CW Brass Gland

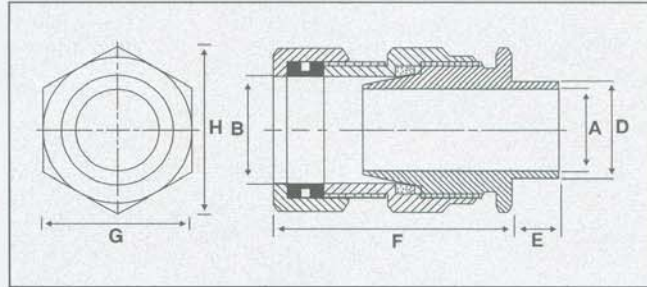
CW GLAND FOR SWA CABLE

- To BS 6121 : Pt 1
- Suitable for single wire armoured, plastic or rubber sheathed cables
- Outer seal grips sheath of cable
- For use in most climatic conditions weatherproof and waterproof
- Seal rated to IP 66
- Design has separate armour locking ring
- Gland rated to IP66 with use of suitable sealing washer or thread sealant at gland interface
- Finish : Natural Brass and also available in Electro Tinned and Nickel

CW FLAME PROOF GLAND FOR SWA CABLE

As above but with these additional benefits :

- For use in hazardous environments
- Complies with BS5501 Pt1 & Pt 6
- CW for flame proof increased safety application
- Threads : Entry threads are metric to BS3643 and are also available in Imperial (ET)
- Also available in Aluminium (BS 1474) cable glands



ORDERING INFORMATION - CABLE AND GLAND DETAILS

Also available in CIEL (Cast Integral Earth Lug) For order Add suffix "C"

COMP. NO.	SIZE	CABLE DIMENSIONS ACCOMODATED			GLAND DIMENSIONS					
		DIAMETER		ARMOUR WIRE DIAMETER C mm	ISO ENTRY THREAD		APPROX LENGTH FROM SHOULDER F mm	HEXAGON SIZE		
		UNDER ARMOUR A MAX. mm	OVERALL B MAX. mm		DIA. D mm	LEN. E mm		ACROSS FLATS G mm	ACROSS CORNERS H mm	
BGC - 16	16	8.60	13.50	0.90	16	10	40.00	20.00	23.00	
BGC - 20 S	20 S	12.50	17.00	0.90 / 1.25	20	10	42.00	24.00	28.00	
BGC - 20	20	14.40	20.50	0.90 / 1.25	20	10	42.00	27.00	31.00	
BGC - 25 S	25 S	17.80	23.80	1.25 / 1.60	25	10	44.00	31.00	34.00	
BGC - 25	25	20.40	27.00	1.25 / 1.60	25	10	45.00	34.30	38.50	
BGC - 32	32	26.50	33.00	1.60 / 2.00	32	10	50.00	41.50	46.50	
BGC - 40 S	40 S	31.00	37.00	1.60 / 2.00	40	10	51.00	45.00	50.00	
BGC - 40	40	32.50	40.80	1.60 / 2.00	40	15	51.00	49.00	54.00	
BGC - 50 S	50 S	37.80	48.00	2.00 / 2.50	50	15	55.00	58.00	65.00	
BGC - 50	50	44.00	53.50	2.00 / 2.50	50	15	55.00	62.30	69.50	
BGC - 63 S	63 S	50.50	60.50	2.50	63	15	59.00	70.00	78.00	
BGC - 63	63	56.50	65.50	2.50	63	15	59.00	76.30	85.00	
BGC - 75 S	75 S	62.50	72.00	2.50	75	15	64.00	85.00	95.00	
BGC - 75	75	67.50	78.50	2.50 / 3.15	75	15	65.00	90.50	99.00	
BGC - 90	90	80.00	94.00	3.15	90	20	75.00	112.00	125.00	

E1W BRASS GLAND



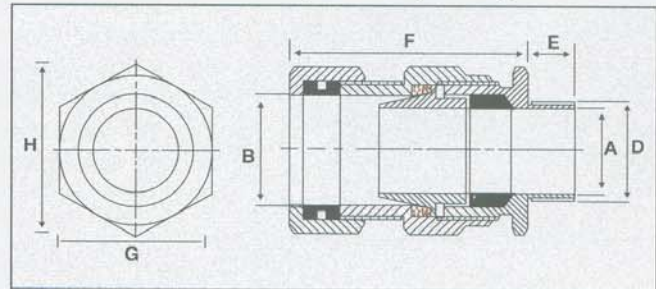
E1W Brass Gland

E1W GLAND FOR SWA CABLE

- Suitable for single wire armoured, plastic or rubber sheathed, extruded bedded cables
- Outer seal grips sheath of cable
- Inner seal grips bedding layer of cable
- For use in most climatic conditions weatherproof and waterproof
- Inner and outer seal rated to IP 66
- Design has separate armour locking ring
- Gland rated to IP66 with use of suitable washer or thread sealant at gland interface
- Finish : Natural Brass and also available in Electro Tinned and Nickel

E1W FLAME PROOF GLAND FOR SWA CABLE

- For use in hazardous environments
- Complies with BS5501 Pt1 & Pt6
- E1W increased safety application
- Threads : Entry threads are metric to BS3643 and are also available in Imperial (ET)
- Also available in Aluminium (BS 1474) cable glands



ORDERING INFORMATION - CABLE AND GLAND DETAILS

COMP. NO.	SIZE	CABLE DIMENSIONS ACCOMODATED			GLAND DIMENSIONS				
		DIAMETER		ARMOUR WIRE DIAMETER C	ISO ENTRY THREAD		APPROX LENGTH FROM SHOULDER F	HEXAGON SIZE	
		UNDER ARMOUR A MAX. mm	OVERALL B MAX. mm		DIA. D	LEN. E		ACROSS FLATS G	ACROSS CORNERS H
BGE - 16	16	8.60	13.50	0.90	16	10	40.00	20.00	23.00
BGE - 20 S	20 S	12.50	17.00	0.90 / 1.25	20	10	42.00	24.00	28.00
BGE - 20	20	14.40	20.50	0.90 / 1.25	20	10	42.00	27.00	31.00
BGE - 25 S	25 S	17.80	23.80	1.25 / 1.60	25	10	44.00	31.00	34.00
BGE - 25	25	20.40	27.00	1.25 / 1.60	25	10	45.00	34.30	38.50
BGE - 32	32	26.50	33.00	1.60 / 2.00	32	10	50.00	41.50	46.50
BGE - 40 S	40 S	31.00	37.00	1.60 / 2.00	40	10	51.00	45.00	50.00
BGE - 40	40	32.50	40.80	1.60 / 2.00	40	15	51.00	49.00	54.00
BGE - 50 S	50 S	37.80	48.00	2.00 / 2.50	50	15	55.00	58.00	65.00
BGE - 50	50	44.00	53.50	2.00 / 2.50	50	15	55.00	62.30	69.50
BGE - 63 S	63 S	50.50	60.50	2.50	63	15	59.00	70.00	78.00
BGE - 63	63	56.50	65.50	2.50	63	15	59.00	76.30	85.00
BGE - 75 S	75 S	62.50	72.00	2.50	75	15	64.00	85.00	95.00
BGE - 75	75	67.50	78.50	2.50 / 3.15	75	15	65.00	90.50	99.00
BGE - 90	90	80.00	94.00	3.15	90	20	75.00	112.00	125.00

SPECIAL TYPE GLANDS



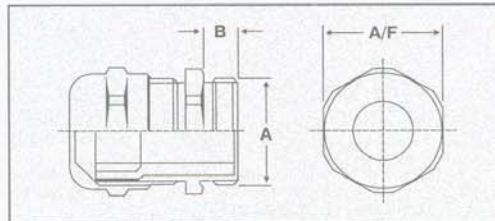
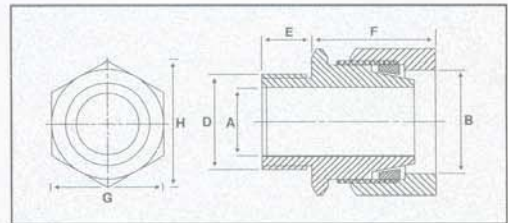
Special Type Glands

'G' TYPE GLAND FOR SWA CABLE

- For use with SWA, Plastic & Rubber sheathed cables
- Used in dry indoor conditions
- Inner ring ensures positive armour clamp and earth continuity
- Finish : Natural Brass and also available in Electro Tinned and Nickel
- Threads : Entry threads are metric to BS 3643 and are also available in imperial (ET)
- Also available in Aluminium (BS 1474) cable glands

'U' TYPE GLAND FOR SWA CABLE

- Features : IP68 rating, Strain relief, 8 Gland size to cover full cable range
- Application : Application is simple, no need to disassemble the gland. Just pass the cable through the assembled gland and tighten gland nut. The perfect gland for unarmoured PVC, XLPE and other synthetic cables.
- Threads : Metric and PG
- Finish : Nickel plated brass
- User Benefits : Fully insulated by plastic insert. Incorporates a unique 'camera shutters' principle, which protects the cable. Neoprens seal for fluid tightness.



ORDERING INFORMATION

'G' TYPE - CABLE AND GLAND DETAILS

COMP. NO.	SIZE	CABLE DIMENSIONS ACCOMODATED					GLAND DIMENSIONS				
		DIAMETER		ARMOUR WIRE DIAMETER C	ISO ENTRY THREAD		APPROX LEN. FROM SHOULDER F	HEXAGON SIZE ACROSS FLATS ACROSS CORNERS		WIDTH A/F	
		UNDER ARM. A MIN. mm	OVER ALL B MAX. mm		DIA. D mm	LEN. E mm		G mm	H mm		
BGG - 204	G-204	-	15.8	15.8	0.9 / 1.25	20	10	24	22.00	24.9	
BGG - 206	G-206	-	21.0	21.0	0.9 / 1.25	20	10	25	27.00	30.0	
BGG - 254	G-254	-	23.8	23.8	1.25 / 1.60	25	10	26	31.7	35.7	
BGG - 256	G-256	-	27.2	27.2	1.25 / 1.60	25	10	26	37.6	42.2	
BGG - 324	G-324	-	33.2	33.2	1.60 / 2.0	32	10	28	47.3	53.6	
BGG - 326	G-326	-	39.2	39.2	1.60 / 2.0	40	15	25	48.4	54.6	
BGG - 405	G-405	-	39.9	39.9	1.60 / 2.0	40	15	25	50.0	57.0	
BGG - 503	G-503	-	51.6	51.6	2.0 / 2.25	50	15	36	58.0	64.2	
BGG - 505	G-505	-	52.6	52.6	2.0 / 2.25	50	15	36	65.0	71.2	
BGG - 636	G-636	-	61.0	61.0	2.5	63	15	30	71.0	77.5	
BGG - 753	G-753	-	71.3	71.3	2.5	75	15	40	85.0	95.0	
BGG - 755	G-755	-	78.0	78.0	2.5	75	15	40	98.0	109.2	

'U' TYPE - CABLE AND GLAND DETAILS

COMP. NO.	MOUN TING DIA. A mm	THREAD LENG. B mm	MIN. CABLE RANGE mm	MAX. CABLE RANGE mm	WIDTH A/F mm
BU12	12	5	3	6	14
BU16	16	5	5	10	17
BU20	20	6	8	13	22
BU25	25	7	11	17	27
BU32	32	8	15	21	34
BU40	40	8	19	28	43
BU50	50	9	26	35	55
BU63	63	10	32	42	65

CABLE GLAND KITS & ACCESSORIES



Cable Gland Kits & Accessories

GLAND KITS

- Convenient, ready to use kits
- Contains all that is necessary for terminating a cable run-gland(s), backnut(s), earth tag(s) and shroud (s)
- Helps to keep all parts for each termination together
- Easier to stock than loose pieces

ACCESSORIES

- Earth tags are available from sizes 16mm to 88mm in both Brass and Aluminium
- Earth tags ensure earth continuity between the electrical equipment and gland
- Locknuts are available in entry thread from size 16mm to 85mm in Brass, Aluminium and Galvanised steel
- PVC shrouds are denoted by gland reference number and are compatible with each gland size.

ORDERING INFORMATION - CABLE AND GLAND DETAILS

BW GLAND REFERENCE			CW GLAND REFERENCE		
COMP. NO.	SIZE	ITEMS PER KIT	COMP. NO.	SIZE	ITEMS PER KIT
BGB - 20 S	20 S	2	BGC - 20 SS	20 SS	2
BGB - 20	20	2	BGC - 20 S	20 S	2
BGB - 25	25	2	BGC - 20	20	2
BGB - 32	32	1	BGC - 25	25	2
BGB - 40	40	1	BGC - 32	32	1
BGB - 50	50	1	BGC - 40	40	1
BGB - 63	63	1	BGC - 50	50	1
BGB - 75	75	1	BGC - 63	63	1
			BGC - 75	75	1

MISCELLANEOUS



Miscellaneous

Tinned Copper Cable Terminal ends (Lugs)

Material : 99.99 % electrolytic copper
 Finish : Tinned Plated
 Sizes : Available Sizes from 1.5mm sq. to 1200mm sq.

Tinned Copper Cable Connectors, Sleeves, Links, Ferrules and Weak ferrules

Material : 99.99% electrolytic copper
 Finish : Tinned Plated
 Sizes : Available Sizes from 1.5mm sq. to 1200mm sq.

Brass Overhead Line Fittings :

Split Bolt Connector (Line Taps)

Material : Brass to BS 2874. Also in Copper.
 Finish : Natural Brass and Electro Tinned
 Sizes : Available Sizes from 1.5mm sq. to 1200mm sq.

Brass Builders Hardware :

Material : Brass
 Finish : Gold plated duly lacquered
 Items : Door handle / stopper, knobs, curtain - ends, hinger, door knocker etc.

Earth Clamps for Pipe Fittings :

Biax earthing clamp meets the required requirements of B5 951

Features : Biax earthing clamps are :

- Easily adapted to conductor sizes up to 70 mm².
- Manufactured by automatic assembly provide consistent, high quality products.

Sizes : BEC-14, BEC-14/1, BEC-14/2.

INGRESS PROTECTION INDEXES

Protection against solids

- 1) IP
- 2) X
- 3) 0
- 1 Protected against solid bodies larger than 50mm. (e.g. accidental contact with the hand)
- 2 Protected against solid bodies larger than 12mm (e.g. finger of the hand)
- 3 Protected against solid bodies larger than 2.5mm (e.g. tools, wires)
- 4 Protected against solid bodies larger than 1 mm (e.g. fine tools & small wire)
- 5 Protected against dust (no harmful deposit)
- 6 Completely protected against dust

Protection against liquids

- 1) IP
- 2) X
- 3) 0
- 1 Protected against vertically falling drops of water. (condensation)
- 2 Protected against drops of water falling at up to 15° from the vertical.
- 3 Protected against drops of rain water at up to 60° from the vertical.
- 4 Protected against projections of water from all directions.
- 5 Protected against jets of water from all directions.
- 6 Protected against the effects of immersion.
- 7 Protected against the effects of submersion.

Gland Selection Chart

The gland sizes recommended are in accordance with calculations based on cables manufactured to BS 6346 (1969) and **Biax** cannot accept any responsibility for cables that prove to deviate materially from the nominal diameters quoted in BS 6346 (1969)

CABLE SPECIFICATION				CABLE GLAND SPECIFICATION						
CONDUCTOR AREA mm	NUMBER OF CORES	NOMINAL DIAMETER		ENTRY THREAD mm	INDOOR BW	OUTDOOR CW	OUTDOOR E1W	OUTDOOR CIEL CW	INDOOR CIEL BW	
		UNDER ARMOUR mm	OVER ALL mm							
1.5	2	8.1	12.5	16	16	16	16	16	16	
	3	8.6	13.0	16	16	16	16	16	16	
	4	9.4	14.0	20	20 S	20 S	20 S	20 S	20 S	
	7	11.3	15.9	20	20 S	20 S	20 S	20 S	20 S	
	12	14.7	20.2	20	20	20	20	20	20	
	19	17.5	23.2	25	25 S	25 S	25 S	25 S	25 S	
	27	21.3	27.0	25	25	25	25	25	25	
2.5	37	23.8	30.6	32	32	32	32	32	32	
	2	9.0	13.6	20	20 S	20 S	20 S	20 S	20 S	
	3	9.5	14.0	20	20 S	20 S	20 S	20 S	20 S	
	4	10.4	15.0	20	20 S	20 S	20 S	20 S	20 S	
	7	12.5	17.0	20	20	20	20	20	20	
	12	16.7	22.4	25	25 S	25 S	25 S	25 S	25 S	
	19	20.0	26.6	25	25	25	25	25	25	
4	27	23.9	30.7	32	32	32	32	32	32	
	37	27.0	33.8	40	40 S	40 S	40 S	40 S	40 S	
	2	10.1	14.7	20	20 S	20 S	20 S	20 S	20 S	
	3	10.7	15.3	20	20 S	20 S	20 S	20 S	20 S	
	4	11.8	16.4	20	20 S	20 S	20 S	20 S	20 S	
	6	2	11.3	15.9	20	20 S	20 S	20 S	20 S	20 S
		3	12.0	16.6	20	20	20	20	20	20
4		13.2	18.7	20	20	20	20	20	20	
10	2	13.2	18.0	20	20	20	20	20	20	
	3	14.0	19.5	20	20	20	20	20	20	
	4	15.6	21.1	25	25 S	25 S	25 S	25 S	25 S	
16	2	14.5	20.0	20	20	20	20	20	20	
	3	15.5	21.2	25	25 S	25 S	25 S	25 S	25 S	
	4	17.2	22.9	25	25 S	25 S	25 S	25 S	25 S	
25	2	18.4	24.1	25	25	25	25	25	25	
	3	20.1	26.7	25	25	25	25	25	25	
	4	22.3	28.9	32	32	32	32	32	32	
35	2	21.3	27.9	32	32	32	32	32	32	
	3	22.8	29.6	32	32	32	32	32	32	
	4	25.3	32.1	32	32	32	32	32	32	
50	1	13.6	19.1	20	20	20	20	20	20	
	2	19.0	25.8	25	25	25	25	25	25	
	3	21.7	28.5	32	32	32	32	32	32	
	4	25.0	32.0	32	32	32	32	32	32	
70	1	15.4	21.1	25	25 S	25 S	25 S	25 S	25 S	
	2	22.0	29.0	32	32	32	32	32	32	
	3	25.2	32.2	32	32	32	32	32	32	
	4	29.5	37.7	40	40 S	40 S	40 S	40 S	40 S	
95	1	17.7	23.4	25	25 S	25 S	25 S	25 S	25 S	
	2	25.1	33.1	32	32	32	32	32	32	
	3	28.8	37.0	40	40 S	40 S	40 S	40 S	40 S	
	4	33.3	41.7	50	50 S	50 S	50 S	50 S	50 S	
120	1	19.7	26.3	25	25 S	25 S	25 S	25 S	25 S	
	2	27.9	36.1	40	40 S	40 S	40 S	40 S	40 S	
	3	32.0	40.4	40	40	40	40	40	40	
	4	37.5	47.1	50	50 S	50 S	50 S	50 S	50 S	
150	1	21.7	28.3	32	32	32	32	32	32	
	2	30.9	39.3	40	40	40	40	40	40	
	3	35.9	45.5	50	50 S	50 S	50 S	50 S	50 S	
	4	41.6	51.4	50	50	50	50	50	50	
185	1	24.0	30.8	32	32	32	32	32	32	
	2	34.9	44.7	50	50 S	50 S	50 S	50 S	50 S	
	3	40.0	49.8	50	50	50	50	50	50	
	4	46.4	56.6	63	63 S	63 S	63 S	63 S	63 S	
240	1	27.1	34.1	40	40 S	40 S	40 S	40 S	40 S	
	2	39.0	49.0	50	50	50	50	50	50	
	3	44.9	55.1	63	63 S	63 S	63 S	63 S	63 S	
	4	52.6	63.0	63	63	63	63	63	63	
300	1	30.0	37.0	40	40 S	40 S	40 S	40 S	40 S	
	2	43.8	53.5	50	50	50	50	50	50	
	3	49.8	60.2	63	63 S	63 S	63 S	63 S	63 S	
	4	58.0	68.8	75	75 S	75 S	75 S	75 S	75 S	
400	1	33.8	42.0	50	50 S	50 S	50 S	50 S	50 S	
	2	48.4	59.0	63	63 S	63 S	63 S	63 S	63 S	
	3	55.8	66.6	63	63	63	63	63	63	
	4	65.4	78.1	75	75	75	75	75	75	
500	1	37.4	45.6	50	50 S	50 S	50 S	50 S		
630	1	41.3	49.7	50	50	50	50	50		
800	1	46.0	55.8	63	63 S	63 S	63 S	63 S		
1000	1	56.0	61.0	63	63	63	63	63		