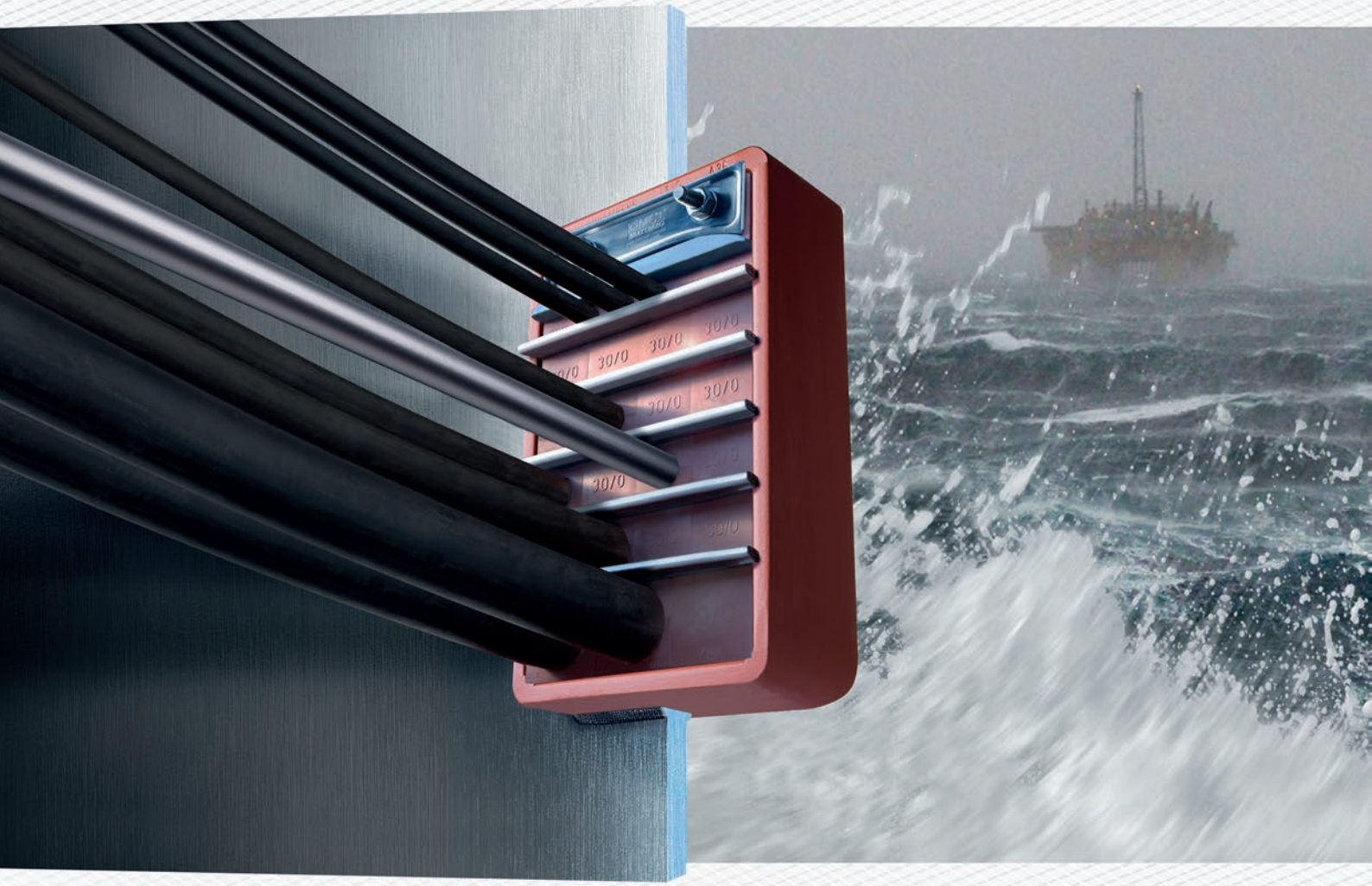
At Sea

Putting safety first

MCT BRATTBERG

Safety above all



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Productprogramme


RGS


RGSF


RGSC

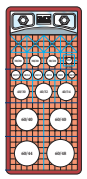

RGSK and RGSbtb

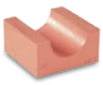

RGSR


Multiple Frame


RGP


Components / Accessories


Planning


Standard Block


AddBlock


Plug


HandiBlock


U-Block


MSR


SR


Deck and Bulkhead

The MCT Brattberg

Putting Safety First

MCT Brattberg has taken a new step to ensure the correct standard of assembled MCT transits. We have done this through a partnership with Consilium Marine & Safety.

We now offer:

INSPECTION

- Ensuring MCT´s meet relevant standards.
- Ensure that MCT´s were installed to manufacturer´s instructions.

TESTING

Pressure testing transit to customer requitements.

TROUBLE SHOOTING

- Assist and Consult on installation of difficult installations.

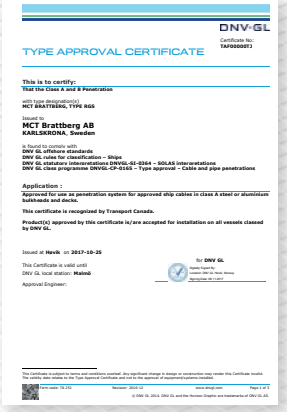
TRAINING

Conduct onshore and offshore training classes to ensure that MCT´s will be installed to code and to manufacturer´s instruction.

Tested, approved and

certified

Since the early 1950s, when we first started specializing in fireproof and pressure-sealed transits, quality testing and classification has been essential.



In 1986 our sealing method and quality system was adapted to meet the rigid requirements of the offshore industry. and have been coutinuously to current requirements.
Today MCT Brattberg is assessed and certified by DNV, in accordance with the Quality and Environment Management system standard EN ISO 9001 and 14001, for the design, manufacture and supply of fire barrier and sealed transit systems associated with cable and pipe routes in building and marine environments. As a direct result of this achievement, quality and environmental assessments are carried out by DNV twice annually.

Our products are tested and certified by a long list of customers, laboratories and certification organizations.

ABS, American Bureau of Shipping - Canadian Coast Guard - Bureau Veritas China Classification Society - Australian Maritime Safety Authority - DNV-GL, Det Norske Veritas Korean Register of Shipping - Lloyds' Register of Shipping - Nippon Kaiji Kyokai Polski Rejestr Statkow - Germanischer Lloyd - Swedish Adm. of Shipping and Navigation Croatian Register of Shipping - RINA, Registro Italiano Navale Russian Maritime Register - US Coast Guard - US Navy - Underwriters Laboratories Inc. Underwriters Laboratories of Canada

MCT Brattberg is also certified according to MED, Marine Equipment Directive (via Lloyds' Register of Shipping)

Please consult MCT Brattberg for latest updated certificates and approvals.

The original cable transit

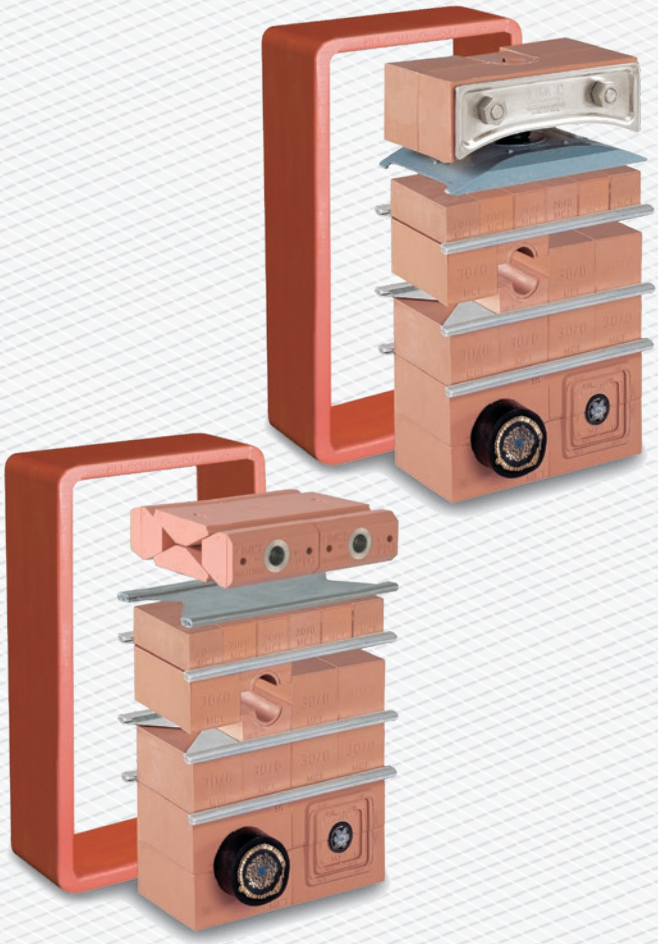
Based on the simple but clever idea of a frame with Insert Blocks and an end seal, the MCT Brattberg is the original transit system.
The MCT Brattberg system was patented in the early 1950s. When oil rigs and nuclear power stations demanded cable and pipe installations with proven safety records, the MCT Brattberg system became a worldwide solution, we´ve been improving it ever since. Comprehensive documentation shows that its resistance to fire, water, gas and pressure meets the latest safety requirements.

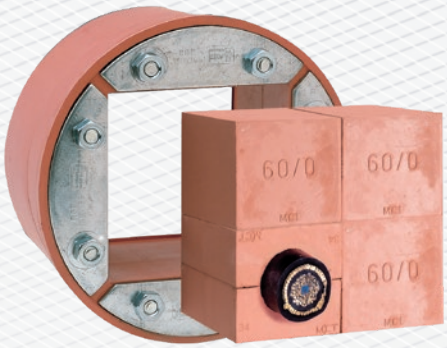
The industry standard

Our own experience has shown that for a standard frame used for maritime applications, an internal width of 120.5 mm (4.74") a depth of 60 mm (2.36") and wall thickness of 10 mm (0.39") are optimal window sizes for maintaining structural strength and for fitting insert blocks. The welded corners are rounded for added strength. Both single and multiple transits frames are available.
The dimensions of the various frames have become the industry standard simply because these types of frames were the first to be introduced and have proved successful over time.

Built in flexibility

The comprehensive range of frames, standard Blocks and other components of our transits provides remarkable application flexibility.
In addition, our product range covers insulation collars and special solutions for EMC transits, SR cable and pipe seals, deck/bulkhead glands.





Special products for specific uses

MCT Brattberg manufactures a number of special products. High pressure secure cable transits, transits for wave guides and blocks with built-in protection against electromagnetic pulse due to lightning or nuclear blast.

High pressure seals

is an example of our special products. Several types of high pressure seals are available. Often these have been designed in collaboration with a customer. They are used, for example, in the supporting legs of oil rigs or in submarines. An example is the RGPH seal, which is certified up to 66.7 bar.

The E-series

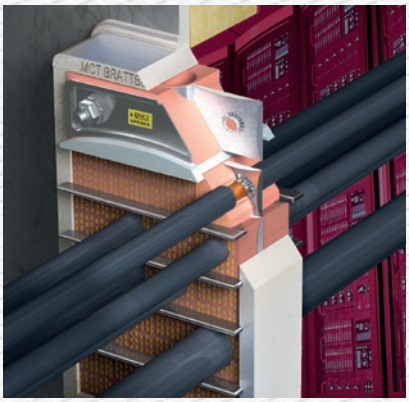
and components provide the same protection as the standard MCT Brattberg system but with added, built-in protection against electromagnetic pulses caused by lightning or nuclear blast.
They also give protection against interference, electronic sabotage and static electricity.
All dimensions are exactly the same as for the other MCT Brattberg components.
The E-series are aproved for Grounding and Bonding.

ATEX and IECEx certified transits

In explosion hazardous environments, it´s important to have Ex equipment. MCT Brattberg has a specific program for this areas with products that are tested and certified according to the ATEX directive and the international IECEx. All dimensions are exactly the same as for the other MCT Brattberg components.

For special products please consult MCT Brattberg.

RGPH is certified up to 66,7 bar



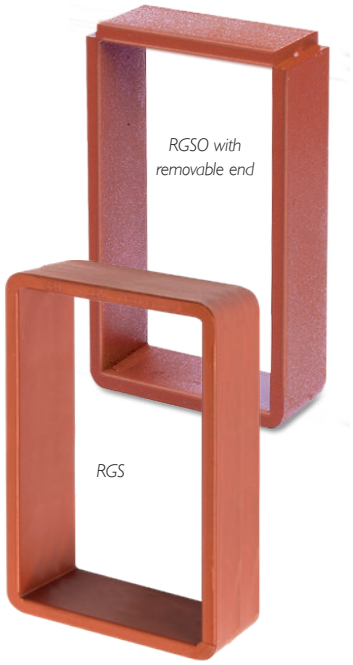
EMC products for grounding and bonding.

Products to protect against explosions.

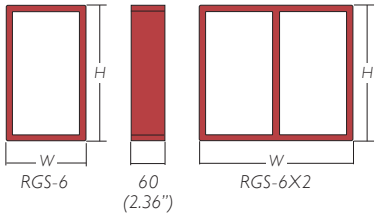
RGS

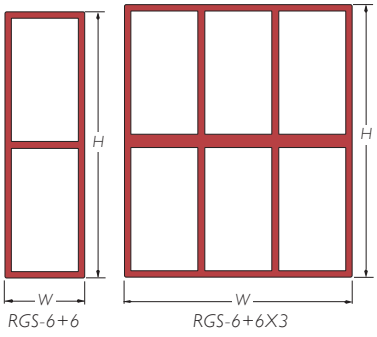
RGSO WITH REMOVABLE END

RGS is MCT Brattberg's standard transit frame for marine applications. It has a standard internal width of 120 mm (4.72") and is 60 mm (2.36") deep. There are four sizes of RGS, denoted by 2,4, 6 and 8 depending on their height. They may be used in both vertical and/or horizontal multiple frames.
The RGS is welded into an accurately pre-cut hole in the deck or bulkhead.
As with all our frames, RGS is produced in steel, stainless steel, or aluminium.
For installations where cables are already in place, specify RGSO, which has a removable end. RGS weight charts can be found on the next page.



	Size in mm								Size in inches							
		W (width) Multiple Frames								W (width) Multiple Frames						
Frame size	**H**	**x 1**	**x 2**	**x 3**	**x 4**	**x 5**	**x 6**	**x n**	**H**	**x 1**	**x 2**	**x 3**	**x 4**	**x 5**	**x 6**	**x n**
RGS-2	121	140,5	271	401,5	532	662,5	793	W = 10 + 130,5 x n	4.76	5.53	10.67	15.81	20.94	26.08	31.2	W = 0.40 + 5.14 x n
RGS-4	179,5	- " -	- " -	- " -	- „ -	- " -	- " -		7.07	- " -	- " -	- " -	- " -	- " -	- " -	
RGS-6	238	- " -	- " -	- " -	- „ -	- " -	- " -		9.37	- " -	- " -	- " -	- " -	- " -	- " -	
RGS-8	296,5	- " -	- " -	- " -	- „ -	- " -	- " -		11.67	- " -	- " -	- " -	- " -	- " -	- " -	
RGS-2+2	242		- " -	- " -	- „ -	- " -	- " -		9.53		- " -	- " -	- " -	- " -	- " -	
RGS-2+4	300,5		- " -	- " -	- „ -	- " -	- " -		11.83		- " -	- " -	- " -	- " -	- " -	
RGS-2+6	359		- " -	- " -	- „ -	- " -	- " -		14.13		- " -	- " -	- " -	- " -	- " -	
RGS-2+8	417,5		- " -	- " -	- „ -	- " -	- " -		16.44		- " -	- " -	- " -	- " -	- " -	
RGS-4+4	359		- " -	- " -	- „ -	- " -	- " -		14.13		- " -	- " -	- " -	- " -	- " -	
RGS-4+6	417,5		- " -	- " -	- „ -	- " -	- " -		16.44		- " -	- " -	- " -	- " -	- " -	
RGS-4+8	476		- " -	- " -	- „ -	- " -	- " -		18.74		- " -	- " -	- " -	- " -	- " -	
RGS-6+6	476		- " -	- " -	- „ -	- " -	- " -		18.74		- " -	- " -	- " -	- " -	- " -	
RGS-6+8	534,5		- " -	- " -	- „ -	- " -	- " -		21.04		- " -	- " -	- " -	- " -	- " -	
RGS-8+8	593		- " -	- " -	- „ -	- " -	- " -		23.35		- " -	- " -	- " -	- " -	- " -	
RGS-2+2	232	140,5	n = number of frames wide. Tolerance single frame: Height ± 1 mm Width ± 0,8 mm Material thickness is 10 mm						9.13	5.53	n = number of frames wide. Tolerance single frame: Height ± 0.04", Width ± 0.03". Material thickness is 0.39".					
RGS-2+4	290,5	- " -							11.44	- " -						
RGS-2+6	349	- " -							13.74	- " -						
RGS-2+8	407,5	- " -							16.04	- " -						
RGS-4+4	349	- " -							13.74	- " -						
RGS-4+6	407,5	- " -							16.04	- " -						
RGS-4+8	466	- " -							18.35	- " -						
RGS-6+6	466	- " -							18.35	- " -						
RGS-6+8	524,5	- " -							20.65	- " -						
RGS-8+8	583	- " -							22.95	- " -						



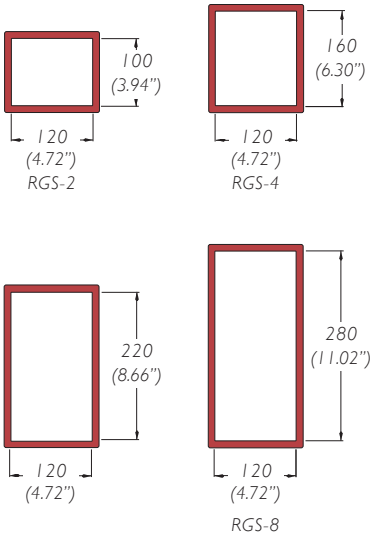


RGS

WEIGHT CHART

Material	Frame size	Weight in kilograms W (width) Multiple Frames x1	x2	x3	x4	x5	x6	Weight in pounds W (width) MultipleFrames x1	x2	x3	x4	x5	x6
MILD STEEL S355JR S355J2 S355K2 A36 AH36 DH36 EH36	RGS-2	2,2	3,9	11,8	7,4	9,2	10,9	4.9	8.6	12.6	32.6	20.3	24.0
	RGS-4	2,7	4,6	13,6	8,4	10,3	12,2	6.0	10.1	1.43	37.3	22.7	26.9
	RGS-6	3,2	5,4	15,1	9,8	12,0	14,2	7.1	11.9	16.8	41.0	26.5	31.3
	RGS-8	3,8	6,3	16,5	11,4	14,0	16,5	8.4	13.9	19.6	44.8	30.9	36.4
	RGS-2+2	3,6	8,1	19,0	15,7	19,5	23,3	7.9	17.9	26.2	52.9	43.0	51.4
	RGS-2+4	4,2	8,8	20,5	16,7	20,7	24,6	9.3	19.4	28.2	56.7	45.6	54.2
	RGS-2+6	4,8	9,5	21,9	17,8	21,9	26,0	10.6	20.9	30.0	60.0	48.3	57.3
	RGS-2+8	5,5	10,3	23,5	19,1	23,5	27,9	12.1	22.7	32.4	64.4	51.8	61.5
	RGS-4+4	4,8	9,5	21,9	17,8	21,9	26,0	10.6	20.9	30.0	60.0	48.3	57.3
	RGS-4+6	5,5	10,3	23,5	19,1	23,5	27,9	12.1	22.7	32.4	64.4	51.8	61.5
	RGS-4+8	5,9	11,1	25,1	20,5	25,1	29,8	13.0	24.5	34.8	68.3	55.3	65.7
	RGS-6+6	5,9	11,1	25,1	20,5	25,1	29,8	13.0	24.5	34.8	68.3	55.3	65.7
	RGS-6+8	6,5	12,0	26,9	22,1	27,1	32,1	14.3	26.5	37.5	73.0	59.7	70.8
	RGS-8+8	7,2	12,9	28,7	23,7	29,1	34,5	15.9	28.4	40.3	78.0	64.2	76.1
STAINLESS STEEL 1.4404 AISI 316L	RGS-2	2,2	4,0	12,1	7,6	9,4	11,2	4.9	8.8	12.8	33.5	20.7	24.7
	RGS-4	2,8	4,7	13,9	8,6	10,6	12,6	6.2	10.4	14.8	38.1	23.4	27.8
	RGS-6	3,3	5,5	15,4	10,0	12,3	14,5	7.3	12.1	17.2	41.9	27.1	31.7
	RGS-8	3,9	6,5	16,9	11,7	14,3	16,9	8.6	14.3	20.1	45.9	31.5	37.3
	RGS-2+2	3,7	8,3	19,5	16,1	20,0	23,9	8.2	18.3	26.9	54.5	44.1	52.7
	RGS-2+4	4,3	9,0	21,0	17,1	21,2	25,2	9.5	19.8	28.9	58.2	46.7	55.6
	RGS-2+6	4,9	9,7	22,4	18,2	22,5	26,7	10.8	21.4	30.9	61.5	49.6	58.9
	RGS-2+8	5,6	10,6	24,2	19,6	24,1	28,6	12.3	23.4	33.3	65.9	53.1	63.1
	RGS-4+4	4,9	9,7	22,4	18,2	22,5	26,7	10.8	21.4	30.9	61.5	49.6	58.9
	RGS-4+6	5,6	10,6	24,2	19,6	24,1	28,6	12.3	23.4	33.3	65.9	53.1	63.1
	RGS-4+8	6,0	11,4	25,8	21,0	25,8	30,6	13.2	25.1	35.7	70.1	56.9	67.5
	RGS-6+6	6,0	11,4	25,8	21,0	25,8	30,6	13.2	25.1	35.7	70.1	56.9	67.5
	RGS-6+8	6,7	12,3	27,5	22,6	27,8	32,9	14.8	27.1	38.6	74.7	61.3	72.5
	RGS-8+8	7,4	13,2	29,5	24,3	29,9	35,4	16.3	29.1	41.4	80.0	65.9	78.0
ALUMINIUM EN AW-6082 EN AW-5086	RGS-2	0,8	1,4	4,1	2,6	3,2	3,8	1.8	3.1	4.4	11.5	7.1	8.4
	RGS-4	1,0	1,6	4,8	3,0	3,6	4,3	2.2	3.5	5.1	13.0	7.9	9.5
	RGS-6	1,1	1,9	5,3	3,4	4,2	5,0	2.4	4.2	6.0	14.3	9.3	11.0
	RGS-8	1,3	2,2	5,8	4,0	4,9	5,8	2.9	4.9	6.8	15.7	10.8	12.8
	RGS-2+2	1,3	2,8	6,7	5,5	6,9	8,2	2.9	6.2	9.3	18.5	15.2	18.1
	RGS-2+4	1,5	3,1	7,2	5,9	7,2	8,6	3.3	6.8	9.9	20.1	15.9	19.0
	RGS-2+6	1,7	3,3	7,7	6,2	7,7	9,1	3.7	7.3	10.6	21.2	17.0	20.1
	RGS-2+8	1,9	3,6	8,3	6,7	8,3	9,8	4.2	7.9	11.5	22.5	18.3	21.6
	RGS-4+4	1,7	3,3	7,7	6,2	7,7	9,1	3.7	7.3	10.6	21.2	17.0	20.1
	RGS-4+6	1,9	3,6	8,3	6,7	8,3	9,8	4.2	7.9	11.5	22.5	18.3	21.6
	RGS-4+8	2,1	3,9	8,8	7,2	8,8	10,4	4.6	8.6	12.1	24.0	19.4	22.9
	RGS-6+6	2,1	3,9	8,8	7,2	8,8	10,4	4.6	8.6	12.1	24.0	19.4	22.9
	RGS-6+8	2,3	4,2	9,4	7,7	9,5	11,2	5.1	9.3	13.2	25.6	20.9	24.7
	RGS-8+8	2,5	4,5	10,0	8,3	10,2	12,1	5.5	9.9	14.1	27.3	22.5	26.7

Standard frames come in four sizes: 2, 4, 6 and 8. They are all the same width. Height differences are shown below. The material is 10 mm (0.39") thick

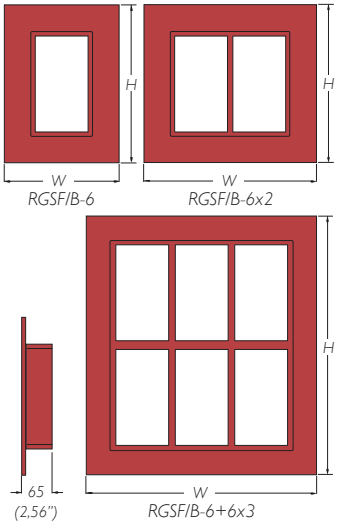


RGSF and RGSFB

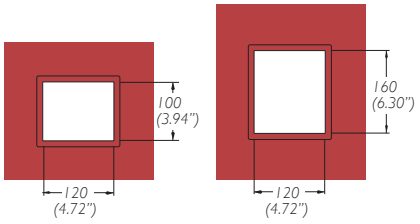
RGSF is a standard RGS transit frame with a flange that allows the frame to be welded into a hole which is slightly larger than the frame.
RGSF comes in the four standard sizes, 2, 4, 6 and 8, and has the standard measurements of the RGS, but with the added width of the flange: 60 mm (2.36") wide and 10 mm (0.39") thick.
RGSF can also be installed in multiple frames, se page 17.
For installations where cables are already in place, specify RGSFO which has a removable end.

The **RGSFB** transit frame is similar to RGSF except that it is bolted to the deck or bulkhead. The bolted frames can be used in areas where hot working is prohibited, or when the stress level induced by welding is unacceptable.
RGSFB frames are supplied in kit form, complete with drilled holes, bolts, nuts, washers and a gasket or sealing compound. The standard sizes and weights are the same as for RGSF.
For installations where cables are already in place, specify RGSFBO which has a bolted removable end.

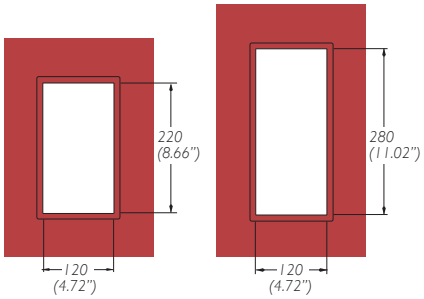
	Size in mm								Size in inches							
	W (width) Multiple Frames								W (width) Multiple Frames							
Frame size	**H**	**x 1**	**x 2**	**x 3**	**x 4**	**x 5**	**x 6**	**x n**	**H**	**x 1**	**x 2**	**x 3**	**x 4**	**x 5**	**x 6**	**x n**
RGSF/B-2	241	60,5	391	521.5	652	782.5	913	W = 130+ 130,5 x n	9.49	10.26	15.39	20.53	25.67	30.81	35.94	W = 5.12 + 5.14 x n
RGSF/B-4	299,5	- " -	- " -	- " -	- " -	- " -	- " -		11.79	- " -	- " -	- " -	- " -	- " -	- " -	
RGSF/B-6	358	- " -	- " -	- " -	- " -	- " -	- " -		14.09	- " -	- " -	- " -	- " -	- " -	- " -	
RGSF/B-8	416,5	- " -	- " -	- " -	- " -	- " -	- " -		16.40	- " -	- " -	- " -	- " -	- " -	- " -	
RGSF/B-2+2	362		- " -	- " -	- " -	- " -	- " -		14.25		- " -	- " -	- " -	- " -	- " -	
RGSF/B-2+4	420,5		- " -	- " -	- " -	- " -	- " -		16.56		- " -	- " -	- " -	- " -	- " -	
RGSF/B-2+6	479		- " -	- " -	- " -	- " -	- " -		18.86		- " -	- " -	- " -	- " -	- " -	
RGSF/B-2+8	537,5		- " -	- " -	- " -	- " -	- " -		21.16		- " -	- " -	- " -	- " -	- " -	
RGSF/B-4+4	479		- " -	- " -	- " -	- " -	- " -		18.86		- " -	- " -	- " -	- " -	- " -	
RGSF/B-4+6	537,5		- " -	- " -	- " -	- " -	- " -		21.16		- " -	- " -	- " -	- " -	- " -	
RGSF/B-4+8	596		- " -	- " -	- " -	- " -	- " -		23.46		- " -	- " -	- " -	- " -	- " -	
RGSF/B-6+6	596		- " -	- " -	- " -	- " -	- " -		23.46		- " -	- " -	- " -	- " -	- " -	
RGSF/B-6+8	654,5		- " -	- " -	- " -	- " -	- " -		25.77		- " -	- " -	- " -	- " -	- " -	
RGSF/B-8+8	713		- " -	- " -	- " -	- " -	- " -		28.07		- " -	- " -	- " -	- " -	- " -	
RGSF/B-2+2	352	260,5	n = number of frames wide. Tolerance single frame: Height ± 1 mm Width ± 0,8 mm Material thickness is 10 mm **RGSF-frames are normally supplied with straight corners but are also available with round corners with a radius of 63 mm**						13.86	10,26	n = number of frames wide. Tolerance single frame: Height ± 0.04", Width ± 0.03". Material thickness is 0.39". **RGSF-frames are normally supplied with straight corners but are also available with round corners with a radius of 2.48".**						
RGSF/B-2+4	410,5	- " -							16.16	- " -						
RGSF/B-2+6	469	- " -							18.46	- " -						
RGSF/B-2+8	527,5	- " -							20.77	- " -						
RGSF/B-4+4	469	- " -							18.46	- " -						
RGSF/B-4+6	527,5	- " -							20.77	- " -						
RGSF/B-4+8	586	- " -							23.07	- " -						
RGSF/B-6+6	586	- " -							23.07	- " -						
RGSF/B-6+8	644,5	- " -							25.37	- " -						
RGSF/B-8+8	703	- " -							27.68	- " -						



Standard frames come in four sizes: 2, 4, 6 and 8. They are all the same width.
Height differences are shown below. The material is 10 mm (0.39") thick.



RGSF/B-2 RGSF/B-4



RGSF/B-6 RGSF/B-8

Material	Frame size	Weight in kilograms W (width) Multiple Frames x1	x2	x3	x4	x5	x6	Weight in pounds W (width) Multiple Frames x1	x2	x3	x4	x5	x6
MILD STEEL S355JR S355J2 S355K2 A36 AH36 DH36 EH36	RGSF/B-2	5,9	8,9	11,8	14,8	17,8	20,7	13.0	19.6	26.0	32.6	39.2	45.6
	RGSF/B-4	7,0	10,3	13,6	16,9	20,2	23,4	15.4	22.7	30.0	37.3	44.5	51.6
	RGSF/B-6	8,0	11,5	15,1	18,6	22,1	25,6	17.6	25.4	33.3	41.0	48.7	56.4
	RGSF/B-8	9,0	12,8	16,5	20,3	24,0	27,8	19.8	28.2	36.4	44.8	52.9	61.3
	RGSF/B-2+2	8,4	13,9	19,0	24,0	29,1	34,1	18.5	30.6	41.9	52.9	64.2	75.2
	RGSF/B-2+4	9,5	15,3	20,5	25,7	30,9	36,1	20.9	33.7	45.2	56.7	68.1	79.6
	RGSF/B-2+6	10,6	16,5	21,9	27,2	32,6	37,9	23.4	36.4	48.3	60.0	71.9	83.6
	RGSF/B-2+8	11,7	17,9	23,5	29,2	34,8	40,4	25.8	39.5	51.8	64.4	76.7	89.1
	RGSF/B-4+4	10,6	16,5	21,9	27,2	32,6	37,9	23.4	36.4	48.3	60.0	71.9	83.6
	RGSF/B-4+6	11,7	17,9	23,5	29,2	34,8	40,4	25.8	39.5	51.8	64.4	76.7	89.1
	RGSF/B-4+8	12,8	19,2	25,1	31,0	36,9	42,8	28.2	42.3	55.3	68.3	81.4	94.4
	RGSF/B-6+6	12,8	19,2	25,1	31,0	36,9	42,8	28.2	42.3	55.3	68.3	81.4	94.4
	RGSF/B-6+8	13,9	20,6	26,9	33,1	39,4	45,6	30.6	45.4	59.3	73.0	86.9	100.5
	RGSF/B-8+8	15,0	22,1	28,7	35,4	42,0	48,6	33.1	48.7	63.3	78.0	92.6	107.1
STAINLESS STEEL 1.4404 AISI 316L	RGSF/B-2	6,1	9,1	12,1	15,2	18,2	21,2	13.4	20.1	26.7	33.5	40.1	46.7
	RGSF/B-4	7,2	10,6	13,9	17,3	20,7	24,0	15.9	23.4	30.6	38.1	45.6	52.9
	RGSF/B-6	8,2	11,8	15,4	19,0	22,7	26,3	18.1	26.0	34.0	41.9	50.0	58.0
	RGSF/B-8	9,2	13,1	16,9	20,8	24,6	28,5	20.3	28.9	37.3	45.9	54.2	62.8
	RGSF/B-2+2	8,6	14,3	19,5	24,7	29,8	35,0	19.0	31.5	43.0	54.5	65.7	77.2
	RGSF/B-2+4	9,7	15,7	21,0	26,4	31,7	37,0	21.4	34.6	46.3	58.2	69.9	81.6
	RGSF/B-2+6	10,9	16,9	22,4	27,9	33,4	38,9	24.0	37.3	49.4	61.5	73.6	85.8
	RGSF/B-2+8	12,0	18,4	24,2	29,9	35,7	41,4	26.5	40.6	53.4	65.9	78.7	91.3
	RGSF/B-4+4	10,9	16,9	22,4	27,9	33,4	38,9	24.0	37.3	49.4	61.5	73.6	85.8
	RGSF/B-4+6	12,0	18,4	24,2	29,9	35,7	41,4	26.5	40.6	53.4	65.9	78.7	91.3
	RGSF/B-4+8	13,1	19,7	25,8	31,8	37,9	43,9	28.9	43.4	56.9	70.1	81.4	96.8
	RGSF/B-6+6	13,1	19,7	25,8	31,8	37,9	43,9	28.9	43.4	56.9	70.1	83.6	96.8
	RGSF/B-6+8	14,3	21,1	27,5	33,9	40,3	46,7	31.5	46.5	60.6	74.7	88.8	103.0
	RGSF/B-8+8	15,4	22,7	29,5	36,3	43,0	49,8	34.0	50.0	65.0	80.0	94.8	109.8
ALUMINIUM EN AW-6082 EN AW-5086	RGSF/B-2	2,1	3,1	4,1	5,2	6,2	7,3	4.6	6.8	9.0	11.5	13.7	16.1
	RGSF/B-4	2,5	3,6	4,8	5,9	7,1	8,2	5.5	7.9	10.6	13.0	15.7	18.1
	RGSF/B-6	2,8	4,0	5,3	6,5	7,7	9,0	6.2	8.8	11.7	14.3	17.0	19.8
	RGSF/B-8	3,2	4,5	5,8	7,1	8,4	9,7	7.1	9.9	12.8	15.7	18.5	21.4
	RGSF/B-2+2	2,9	4,9	6,7	8,4	10,2	11,9	6.4	10.8	14.8	18.5	22.5	26.2
	RGSF/B-2+4	3,3	5,4	7,2	9,1	10,9	12,7	7.3	11.9	15.9	20.1	24.0	28.0
	RGSF/B-2+6	3,7	5,8	7,7	9,6	11,4	13,3	8.2	12.8	17.0	21.2	25.1	29.3
	RGSF/B-2+8	4,1	6,3	8,3	10,2	12,2	14,1	9.0	13.9	18.3	22.5	26.9	31.1
	RGSF/B-4+4	3,7	5,8	7,7	9,6	11,4	13,3	8.2	12.8	17.0	21.2	25.1	29.3
	RGSF/B-4+6	4,1	6,3	8,3	10,2	12,2	14,1	9.0	13.9	18.3	22.5	26.9	31.1
	RGSF/B-4+8	4,5	6,7	8,8	10,9	12,9	15,0	9.9	14.8	19.4	24.0	28.4	33.1
	RGSF/B-6+6	4,5	6,7	8,8	10,9	12,9	15,0	9.9	14.8	19.4	24.0	28.4	33.1
	RGSF/B-6+8	4,9	7,2	9,4	11,6	13,7	15,9	10.8	15.9	20.7	25.6	30.2	35.1
	RGSF/B-8+8	5,3	7,7	10,0	12,4	14,7	17,0	11.7	17.0	22.0	27.3	32.4	37.5

RGSC

RGSC is used in decks and bulkheads which are subjected to higher degrees of stress and heavier loading. The additional, rounded ends help prevent stress cracking. Similar to the RGS frame, it is available in sizes 2, 4, 6 and 8.
RGSC can also be supplied as multiple frames. Available in mild steel, stainless steel and aluminium. Special cornerblocks and STG-endpackings with rounded corners are available.

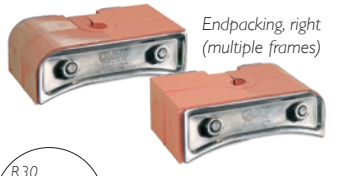
Endpacking, centre

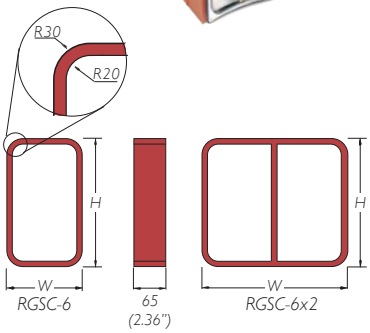
	Size in mm								Size in inches							
		W (width) Multiple Frames								W (width) Multiple Frames						
Frame size	**H**	**x 1**	**x 2**	**x 3**	**x 4**	**x 5**	**x 6**	**x n**	**H**	**x 1**	**x 2**	**x 3**	**x 4**	**x 5**	**x 6**	**x n**
RGSC-2	121	140,5	271	401,5	532	662,5	793	W = 130+ 130,5 × n	4.76	5.53	10.67	15.81	20.94	26.08	31.22	W = 0.40 + 5.14 × n
RGSC-4	179,5	- " -	- " -	- " -	- " -	- " -	- " -		7.07	- " -	- " -	- " -	- " -	- " -	- " -	
RGSC-6	238	- " -	- " -	- " -	- " -	- " -	- " -		9.37	- " -	- " -	- " -	- " -	- " -	- " -	
RGSC-8	296,5	- " -	- " -	- " -	- " -	- " -	- " -		11.67	- " -	- " -	- " -	- " -	- " -	- " -	
RGSC-2+2	242		- " -	- " -	- " -	- " -	- " -		9.53		- " -	- " -	- " -	- " -	- " -	
RGSC-2+4	300,5		- " -	- " -	- " -	- " -	- " -		11.83		- " -	- " -	- " -	- " -	- " -	
RGSC-2+6	359		- " -	- " -	- " -	- " -	- " -		14.13		- " -	- " -	- " -	- " -	- " -	
RGSC-2+8	417,5		- " -	- " -	- " -	- " -	- " -		16.44		- " -	- " -	- " -	- " -	- " -	
RGSC-4+4	359		- " -	- " -	- " -	- " -	- " -		14.13		- " -	- " -	- " -	- " -	- " -	
RGSC-4+6	417,5		- " -	- " -	- " -	- " -	- " -		16.44		- " -	- " -	- " -	- " -	- " -	
RGSC-4+8	476		- " -	- " -	- " -	- " -	- " -		18.74		- " -	- " -	- " -	- " -	- " -	
RGSC-6+6	476		- " -	- " -	- " -	- " -	- " -		18.74		- " -	- " -	- " -	- " -	- " -	
RGSC-6+8	534,5		- " -	- " -	- " -	- " -	- " -		21.04		- " -	- " -	- " -	- " -	- " -	
RGSC-8+8	593		- " -	- " -	- " -	- " -	- " -		23.35		- " -	- " -	- " -	- " -	- " -	
RGSC-2+2	232	140,5	n = number of frames wide. Tolerance single frame: Height ± 1 mm Width ± 0.8 mm Material thickness is 10 mm						9.13	5.53	n = number of frames wide. Tolerance single frame: Height ± 0.04", Width ± 0.03" Material thickness is 0.39".					
RGSC-2+4	290,5	- " -							11.44	- " -						
RGSC-2+6	349	- " -							13.74	- " -						
RGSC-2+8	407,5	- " -							16.04	- " -						
RGSC-4+4	349	- " -							13.74	- " -						
RGSC-4+6	407,5	- " -							16.04	- " -						
RGSC-4+8	466	- " -							18.35	- " -						
RGSC-6+6	466	- " -							18.35	- " -						
RGSC-6+8	524,5	- " -							20.65	- " -						
RGSC-8+8	583	- " -							22.95	- " -						

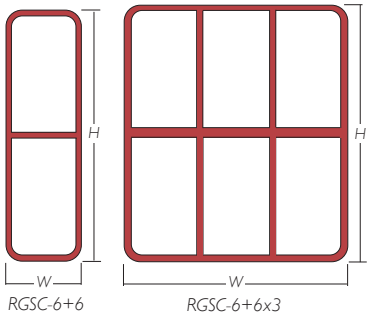

Cornerblocks

Endpacking, left (multiple frames)

Endpacking, right (multiple frames)





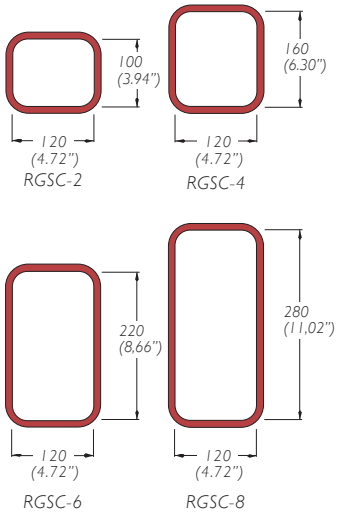


RGSC

WEIGHT CHART

Material	Frame size	Weight in kilograms W (width) Multiple Frames x1	x2	x3	x4	x5	x6	Weight in pounds W (width) Multiple Frames x1	x2	x3	x4	x5	x6
MILD STEEL S355JR S355J2 S355K2 A36 AH36 DH36 EH36	RGSC-2	2,2	3,9	5,7	7,4	9,2	10,9	4.9	8.6	12.6	16.3	20.3	24.0
	RGSC-4	2,7	4,6	6,5	8,4	10,3	12,2	6.0	10.1	14.3	18.5	22.7	26.9
	RGSC-6	3,2	5,4	7,6	9,8	12,0	14,2	7.1	11.9	16.8	21.6	26.5	31.3
	RGSC-8	3,8	6,3	8,9	11,4	14,0	16,5	8.4	13.9	19.6	25.1	30.9	36.4
	RGSC-2+2	3,6	8,1	11,9	15,7	19,5	23,3	7.9	17.9	26.2	34.6	43.0	51.4
	RGSC-2+4	4,2	8,8	12,8	16,7	20,7	24,6	9.3	19.4	28.2	36.8	45.6	54.2
	RGSC-2+6	4,8	9,5	13,6	17,8	21,9	26,0	10.6	20.9	30.0	39.2	48.3	57.3
	RGSC-2+8	5,5	10,3	14,7	19,1	23,5	27,9	12.1	22.7	32.4	42.1	51.8	61.5
	RGSC-4+4	4,8	9,5	13,6	17,8	21,9	26,0	10.6	20.9	30.0	39.2	48.3	57.3
	RGSC-4+6	5,5	10,3	14,7	19,1	23,5	27,9	12.1	22.7	32.4	42.1	51.8	61.5
	RGSC-4+8	5,9	11,1	15,8	20,5	25,1	29,8	13.0	24.5	34.8	45.2	55.3	65.7
	RGSC-6+6	5,9	11,1	15,8	20,5	25,1	29,8	13.0	24.5	34.8	45.2	55.3	65.7
	RGSC-6+8	6,5	12,0	17,0	22,1	27,1	32,1	14.3	26.5	37.5	48.7	59.7	70.8
	RGSC-8+8	7,2	12,9	18,3	23,7	29,1	34,5	15.9	28.4	40.3	52.2	64.2	76.1
STAINLESS STEEL 1.4404 AISI 316L	RGSC-2	2,2	4,0	5,8	7,6	9,4	11,2	4.9	8.8	12.8	16.8	20.7	24.7
	RGSC-4	2,8	4,7	6,7	8,6	10,6	12,6	6.2	10.4	14.8	19.0	23.4	27.8
	RGSC-6	3,3	5,5	7,8	10,0	12,3	14,5	7.3	12.1	17.2	22.0	27.1	32.0
	RGSC-8	3,9	6,5	9,1	11,7	14,3	16,9	8.6	14.3	20.1	25.8	31.5	37.3
	RGSC-2+2	3,7	8,3	12,2	16,1	20,0	23,9	8.2	18.3	26.9	35.5	44.1	52.7
	RGSC-2+4	4,3	9,0	13,1	17,1	21,2	25,2	9.5	19.8	28.9	37.7	46.7	55.6
	RGSC-2+6	4,9	9,7	14,0	18,2	22,5	26,7	10.8	21.4	30.9	40.1	49.6	58.9
	RGSC-2+8	5,6	10,6	15,1	19,6	24,1	28,6	12.3	23.4	33.3	43.2	53.1	63.1
	RGSC-4+4	4,9	9,7	14,0	18,2	22,5	26,7	10.8	21.4	30.9	40.1	49.6	58.9
	RGSC-4+6	5,6	10,6	15,1	19,6	24,1	28,6	12.3	23.4	33.3	43.2	53.1	63.1
	RGSC-4+8	6,0	11,4	16,2	21,0	25,8	30,6	13.2	25.1	35.7	46.3	56.9	67.5
	RGSC-6+6	6,0	11,4	16,2	21,0	25,8	30,6	13.2	25.1	35.7	46.3	56.9	67.5
	RGSC-6+8	6,7	12,3	17,5	22,6	27,8	32,9	14.8	27.1	38.6	49.8	61.3	72.5
	RGSC-8+8	7,4	13,2	18,8	24,3	29,9	35,4	16.3	29.1	41.4	53.6	65.9	78.0
ALUMINIUM EN AW-6082 EN AW-5086	RGSC-2	0,8	1,4	2,0	2,6	3,2	3,8	1.8	3.1	4.4	5.7	7.1	8.4
	RGSC-4	1,0	1,6	2,3	3,0	3,6	4,3	2.2	3.5	5.1	6.6	7.9	9.5
	RGSC-6	1,1	1,9	2,7	3,4	4,2	5,0	2.4	4.2	6.0	7.5	9.3	11.0
	RGSC-8	1,3	2,2	3,1	4,0	4,9	5,8	2.9	4.9	6.8	8.8	10.8	12.8
	RGSC-2+2	1,3	2,8	4,2	5,5	6,9	8,2	2.9	6.2	9.3	12.1	15.2	18.1
	RGSC-2+4	1,5	3,1	4,5	5,9	7,2	8,6	3.3	6.8	9.9	13.0	15.9	19.0
	RGSC-2+6	1,7	3,3	4,8	6,2	7,7	9,1	3.7	7.3	10.6	13.7	17.0	20.1
	RGSC-2+8	1,9	3,6	5,2	6,7	8,3	9,8	4.2	7.9	11.5	14.8	18.3	21.6
	RGSC-4+4	1,7	3,3	4,8	6,2	7,7	9,1	3.7	7.3	10.6	13.7	17.0	20.1
	RGSC-4+6	1,9	3,6	5,2	6,7	8,3	9,8	4.2	7.9	11.5	14.8	18.3	21.6
	RGSC-4+8	2,1	3,9	5,5	7,2	8,8	10,4	4.6	8.6	12.1	15.9	19.4	22.9
	RGSC-6+6	2,1	3,9	5,5	7,2	8,8	10,4	4.6	8.6	12.1	15.9	19.4	22.9
	RGSC-6+8	2,3	4,2	6,0	7,7	9,5	11,2	5.1	9.3	13.2	17.0	20.9	24.7
	RGSC-8+8	2,5	4,5	6,4	8,3	10,2	12,1	5.5	9.9	14.1	18.3	22.5	26.7

Standard frames come in four sizes: 2, 4, 6 and 8. They are all the same width. Height differences are shown below.
The material is 10 mm (0.39") thick.



RGSK and RGSbtb

RGSK is an extended, standard RGS transit frame, with machined grooves for stayplates and compression plates. The material is 10 mm (0.39") thick on the ends and 12 mm (0.47") thick on the sides. RGSK is available in the four standard sizes: 2, 4, 6 and 8.
RGSK frames are recommended if pooling of water on the transit face makes it necessary to install packing blocks at a certain distance from the deck or bulkhead.
The frame is 120 mm (4.72") deep (as opposed to 60 mm (2.36") on a RGS) and of standard internal width 120 mm (4.72")
It may be used in multiple frames, see page 17.

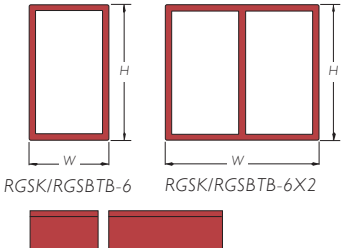
RGSbtb is a double transit which is packed from both sides, enabling on site pressure testing of the penetration. Installations with this transit can be pressure tested from the space between the pack block units. This also conform the jet-fire rating.
An RGSbtb frame can be used to protect cables from water penetration, combined with EMC protection. One side of the packing takes care of water penetration and the other side gives
EMC protection.

The frame is 10 mm (0.39")thick on the ends and 12 mm (0.47") thick on the sides. It is 200 mm (7.87") deep. Other dimensions are the same as for the standard RGS.
RGSbtb is available in the four standard sizes: 2, 4, 6, and 8. They may be used in multiple frames.

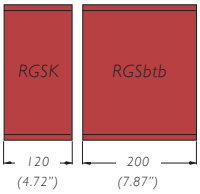
	Size in mm							Size in inches						
	W (width) Multiple Frames							W (widht) Muliple Frames						
Frame size	H	x 1	x 2	x 3	x 4	x 5	x n	H	x 1	x 2	x 3	x 4	x 5	x n
RGSK/RGSbtb-2	121	144,5	275	405,5	536	666,5	W =14 + 130,5 x n	4.76	5.69	10.83	15.96	21.10	26.24	W = 0,55" + 5.14 x n
RGSK/RGSbtb-4	179,5	- " -	- " -	- " -	- " -	- " -		7.07	- " -	- " -	- " -	- " -	- " -	
RGSK/RGSbtb-6	238	- " -	- " -	- " -	- " -	- " -		9.37	- " -	- " -	- " -	- " -	- " -	
RGSK/RGSbtb-8	296,5	- " -	- " -	- " -	- " -	- " -		11.67	- " -	- " -	- " -	- " -	- " -	
RGSK/RGSbtb-2+2	232		- " -	- " -	- " -	- " -		9.13		- " -	- " -	- " -	- " -	
RGSK/RGSbtb-2+4	290,5		- " -	- " -	- " -	- " -		11.44		- " -	- " -	- " -	- " -	
RGSK/RGSbtb-2+6	349		- " -	- " -	- " -	- " -		13.74		- " -	- " -	- " -	- " -	
RGSK/RGSbtb-2+8	407,5		- " -	- " -	- " -	- " -		16.04		- " -	- " -	- " -	- " -	
RGSK/RGSbtb-4+4	349		- " -	- " -	- " -	- " -		13.74		- " -	- " -	- " -	- " -	
RGSK/RGSbtb-4+6	407,5		- " -	- " -	- " -	- " -		16.04		- " -	- " -	- " -	- " -	
RGSK/RGSbtb-4+8	466		- " -	- " -	- " -	- " -		18.35		- " -	- " -	- " -	- " -	
RGSK/RGSbtb-6+6	466		- " -	- " -	- " -	- " -		18.35		- " -	- " -	- " -	- " -	
RGSK/RGSbtb-6+8	524,5		- " -	- " -	- " -	- " -		20.65		- " -	- " -	- " -	- " -	
RGSK/RGSbtb-8+8	583		- " -	- " -	- " -	- " -		22.95		- " -	- " -	- " -	- " -	

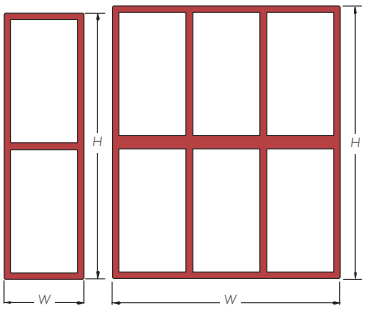
Tolerance single frame:
Height ± 1 mm, Width ± 0.8 mm.
Material thickness is 10 mm.

Tolerance single frame:
Height ± 0.04", Width ± 0.03"
Material thickness is 0.39".



RGSK/RGSBTB-6 RGSK/RGSBTB-6X2





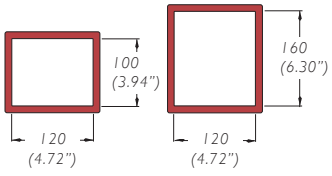
RGSK/RGSBTB-6+6 RGSK/RGSBTB-6+6X3

RGSK

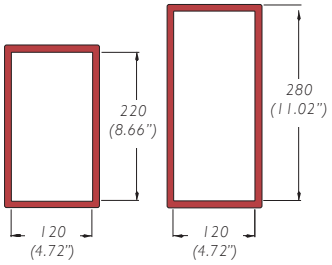
WEIGHT CHART

Material	Frame size	Weight in kilograms W (width) Multiple Frames x1	x2	x3	x4	x5	x6	Weight in pounds W (widht) Muliple Frames x1	x2	x3	x 4	x 5	x6
MILD STEEL S355JR S355J2 S355K2 A36 AH36 DH36 EH36	RGSK-2	4,7	7,7	10,7	13,7	16,7	19,7	10.4	17.0	23.6	30.2	36.8	43.4
	RGSK-4	6,0	9,3	12,6	15,9	19,2	22,5	13.2	20.5	27.8	35.1	42.3	49.6
	RGSK-6	7,3	10,9	14,5	18,2	21,8	25,4	16.1	24.0	32.0	40.1	48.1	56.0
	RGSK-8	8,7	12,5	16,4	20,4	24,3	28,2	19.2	27.6	36.2	45.0	53.6	62.2
	RGSK-2+2	7,8	11,9	16,1	20,4	24,6	28,8	17.2	26.2	35.5	45.0	54.2	63.5
	RGSK-2+4	9,2	13,6	18,1	22,6	27,1	31,6	20.3	30.0	39.9	49.8	59.7	69.7
	RGSK-2+6	10,6	15,2	20,0	24,8	29,5	34,3	23.4	33.5	44.1	54.7	65.0	75.6
	RGSK-2+8	11,9	16,9	22,0	27,0	32,1	37,1	26.2	37.3	48.5	59.5	70.8	81.8
	RGSK-4+4	10,6	15,2	20,0	24,8	29,5	34,3	23.4	33.5	44.1	54.7	65.0	75.6
	RGSK-4+6	11,9	16,9	22,0	27,0	32,1	37,1	26.2	37.3	48.5	59.5	70.8	81.8
	RGSK-4+8	13,2	18,4	23,7	29,1	34,4	39,7	29.1	40.6	52.2	64.2	75.8	87.5
	RGSK-6+6	13,2	18,4	23,7	29,1	34,4	39,7	29.1	40.6	52.2	64.2	75.8	87.5
	RGSK-6+8	14,5	20,0	25,5	31,0	36,5	42,5	32.0	44.1	56.2	68.3	80.5	93.7
	RGSK-8+8	15,9	21,6	27,4	33,2	38,9	45,2	35.1	47.6	60.4	73.2	85.8	99.6
STAINLESS STEEL 1.4404 AISI 316L	RGSK-2	4,8	7,9	11,0	14,1	17,1	20,2	10.6	17.4	24.3	31.1	37.7	44.5
	RGSK-4	6,2	9,5	12,9	16,3	19,7	23,1	13.7	20.9	28.4	35.9	43.4	50.9
	RGSK-6	7,5	11,2	14,9	18,6	22,3	26,0	16.5	24.7	32.8	41.0	49.2	57.3
	RGSK-8	8,9	12,8	16,8	20,9	24,9	28,9	19.6	28.2	37.0	46.1	54.9	63.7
	RGSK-2+2	8,0	12,2	16,5	20,9	25,2	29,5	17.6	26.9	36.4	46.1	55.6	65.0
	RGSK-2+4	9,4	13,9	18,5	23,2	27,8	32,4	20.7	30.6	40.8	51.1	61.3	71.4
	RGSK-2+6	10,9	15,6	20,5	25,4	30,3	35,2	24.0	34.4	45.2	56.0	66.8	77.6
	RGSK-2+8	12,2	17,3	22,5	27,7	32,8	38,0	26.9	38.1	49.6	61.1	72.3	83.8
	RGSK-4+4	10,9	15,6	20,5	25,4	30,3	35,2	24.0	34.4	45.2	56.0	66.8	77.6
	RGSK-4+6	12,2	17,3	22,5	27,7	32,8	38,0	26.9	38.1	49.6	61.1	72.3	83.8
	RGSK-4+8	13,5	18,9	24,4	29,8	35,3	40,7	29.8	41.7	53.8	65.7	77.8	89.7
	RGSK-6+6	13,5	18,9	24,4	29,8	35,3	40,7	29.8	41.7	53.8	65.7	77.8	89.7
	RGSK-6+8	14,9	20,5	26,3	32,1	37,8	43,6	32.8	45.2	58.0	70.8	83.3	96.1
	RGSK-8+8	16,3	22,1	28,2	34,2	40,3	46,3	35.9	48.7	62.2	75.4	88.8	102.1
ALUMINIUM EN AW-6082 EN AW-5086	RGSK-2	1,7	2,7	3,7	4,8	5,8	6,8	3.7	6.0	8.2	10.6	12.8	15.0
	RGSK-4	2,1	3,3	4,5	5,6	6,8	7,9	4.6	7.3	9.9	12.3	15.0	17.4
	RGSK-6	2,6	3,8	5,1	6,4	7,6	8,9	5.7	8.4	11.2	14.1	16.8	19.6
	RGSK-8	3,1	4,4	5,8	7,2	8,5	9,9	6.8	9.7	12.8	15.9	18.7	21.8
	RGSK-2+2	2,7	4,2	5,7	7,2	8,6	10,1	6.0	9.3	12.6	15.9	19.0	22.3
	RGSK-2+4	3,2	4,8	6,4	8,0	9,5	11,1	7.1	10.6	14.1	17.6	20.9	24.5
	RGSK-2+6	3,7	5,3	7,0	8,7	10,3	12,0	8.2	11.7	15.4	19.2	22.7	26.5
	RGSK-2+8	4,2	5,9	7,7	9,5	11,2	13,0	9.3	13.0	17.0	20.9	24.7	28.7
	RGSK-4+4	3,7	5,3	7,0	8,7	10,3	12,0	8.2	11.7	15.4	19.2	22.7	26.5
	RGSK-4+6	4,2	5,9	7,7	9,5	11,2	13,0	9.3	13.0	17.0	20.9	24.7	28.7
	RGSK-4+8	4,6	6,4	8,3	10,2	12,0	13,9	10.1	14.1	18.3	22.5	26.5	30.6
	RGSK-6+6	4,6	6,4	8,3	10,2	12,0	13,9	10.1	14.1	18.3	22.5	26.5	30.6
	RGSK-6+8	5,1	7,0	9,0	11,0	12,9	14,9	11.2	15.4	19.8	24.3	28.4	32.8
	RGSK-8+8	5,6	7,6	9,7	11,7	13,8	15,8	12.3	16.8	21.4	25.8	30.4	34.8

Standard frames come in four sizes: 2, 4, 6 and 8. They are all the same width. Height differences are shown below.



RGSK/RGSBTB-2 RGSK/RGSBTB-4

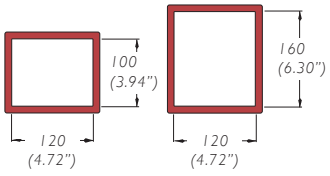


RGSK/RGSBTB-6 RGSK/RGSbtb-8

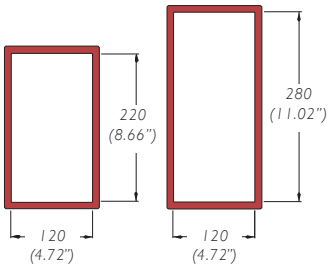
RGSbtb

WEIGHT CHART

Standard frames come in four sizes: 2, 4, 6 and 8. They are all the same width. Height differences are shown below.



RGSbtb-2 RGSbtb-4



RGSbtb-6 RGSbtb-8

		Weight in kilograms						Weight in pounds					
		W (width) Multiple Frames						W (width) Multiple Frames					
Material	Frame size	x1	x2	x3	x4	x5	x6	x1	x2	x3	x4	x5	x6
MILD STEEL S355JR S355J2 S355K2 A36 AH36 DH36 EH36	RGSbtb-2	7,9	13,0	18,4	7,4	29,1	34,4	17.4	28.7	16.3	52.2	64.2	75.8
	RGSbtb-4	10,1	15,8	21,7	8,4	33,5	39,4	22.3	34.8	18.5	60.8	73.9	86.9
	RGSbtb-6	12,4	18,6	25,1	9,8	38,0	44,4	27.3	41.0	21.6	69.4	83.8	97.9
	RGSbtb-8	14,5	21,2	28,2	11,4	42,2	49,2	32.0	46.7	25.1	77.6	93.0	108.5
	RGSbtb-2+2	13,5	20,9	28,5	15,7	43,7	51,3	29.8	46.1	34.6	79.6	96.3	113.1
	RGSbtb-2+4	15,3	23,3	31,5	16,7	47,8	56,0	33.7	51.4	36.8	87.5	105.4	123.5
	RGSbtb-2+6	17,8	26,3	35,0	17,8	52,4	61,1	39.2	58.0	39.2	96.3	115.5	134.7
	RGSbtb-2+8	20,0	29,1	38,4	19,1	56,9	66,2	44.1	64.2	42.1	105.2	125.4	145.9
	RGSbtb-4+4	17,8	26,3	35,0	17,8	52,4	61,1	39.2	58.0	39.2	96.3	115.5	134.7
	RGSbtb-4+6	20,0	29,1	38,4	19,1	56,9	66,2	44.1	64.2	42.1	105.2	125.4	145.9
	RGSbtb-4+8	22,3	31,9	41,7	20,5	61,3	71,1	49.2	70.3	45.2	113.5	135.1	156.7
	RGSbtb-6+6	22,3	31,9	41,7	20,5	61,3	71,1	49.2	70.3	45.2	113.5	135.1	156.7
	RGSbtb-6+8	24,5	34,7	45,1	22,1	65,8	76,2	54.0	76.5	48.7	122.4	145.1	168.0
	RGSbtb-8+8	26,6	37,3	48,2	23,7	70,1	81,0	58.6	82.2	52.2	130.5	154.5	178.6
STAINLESS STEEL 1.4404 AISI 316L	RGSbtb-2	8,1	13,3	18,8	7,6	29,8	35,3	17.9	29.3	16.8	53.6	65.7	77.8
	RGSbtb-4	10,4	16,2	22,3	8,6	34,4	40,4	22.9	35.7	19.0	62.4	75.8	89.1
	RGSbtb-6	12,7	19,1	25,7	10,0	38,9	45,5	28.0	42.1	22.0	71.2	85.8	100.3
	RGSbtb-8	14,9	21,7	28,9	11,7	43,2	50,4	32.8	47.8	25.8	79.6	95.2	111.1
	RGSbtb-2+2	13,8	21,4	29,2	16,1	44,8	52,6	30.4	47.2	35.5	81.6	98.8	116.0
	RGSbtb-2+4	15,7	23,9	32,3	17,1	49,0	57,4	34.6	52.7	37.7	89.7	108.0	126.5
	RGSbtb-2+6	18,3	27,0	35,9	18,2	53,7	62,6	40.3	59.5	40.1	98.8	118.4	138.0
	RGSbtb-2+8	20,5	29,8	39,3	19,6	58,4	67,9	45.2	65.7	43.2	107.8	128.7	149.7
	RGSbtb-4+4	18,3	27,0	35,9	18,2	53,7	62,6	40.3	59.5	40.1	98.8	118.4	138.0
	RGSbtb-4+6	20,5	29,8	39,3	19,6	58,4	67,9	45.2	65.7	43.2	107.8	128.7	149.7
	RGSbtb-4+8	22,9	32,7	42,8	21,0	62,9	72,9	50.5	72.1	46.3	116.4	138.7	160.7
	RGSbtb-6+6	22,9	32,7	42,8	21,0	62,9	72,9	50.5	72.1	46.3	116.4	138.7	160.7
	RGSbtb-6+8	25,1	35,6	46,1	22,6	67,5	78,1	55.3	78.5	49.8	125.4	148.8	172.2
	RGSbtb-8+8	27,3	38,2	49,4	24,3	71,8	83,0	60.2	84.2	53.6	133.6	158.3	183.0
ALUMINIUM EN AW-6082 EN-AW-5086	RGSbtb-2	2,8	4,6	6,5	2,6	10,2	12,0	6.2	10.1	5.7	18.3	22.5	26.5
	RGSbtb-4	3,5	5,5	7,6	3,0	11,7	13,8	7.7	12.1	6.6	21.4	25.8	30.4
	RGSbtb-6	4,3	6,5	8,8	3,4	13,3	15,5	9.5	14.3	7.5	24.3	29.3	34.2
	RGSbtb-8	5,1	7,4	9,9	4,0	14,8	17,2	11.2	16.3	8.8	27.1	32.6	37.9
	RGSbtb-2+2	4,7	7,3	10,0	5,5	15,3	18,0	10.4	16.1	12.1	28.0	33.7	39.7
	RGSbtb-2+4	5,4	8,2	11,1	5,9	16,8	19,6	11.9	18.1	13.0	30.6	37.0	43.2
	RGSbtb-2+6	6,2	9,2	12,3	6,2	18,4	21,4	13.7	20.3	13.7	33.7	40.6	47.2
	RGSbtb-2+8	7,0	10,2	13,5	6,7	20,0	23,2	15.4	22.5	14.8	36.8	44.1	51.1
	RGSbtb-4+4	6,2	9,2	12,3	6,2	18,4	21,4	13.7	20.3	13.7	33.7	40.6	47.2
	RGSbtb-4+6	7,0	10,2	13,5	6,7	20,0	23,2	15.4	22.5	14.8	36.8	44.1	51.1
	RGSbtb-4+8	7,8	11,2	14,6	7,2	21,5	24,9	17.2	24.7	15.9	39.9	47.4	54.9
	RGSbtb-6+6	7,8	11,2	14,6	7,2	21,5	24,9	17.2	24.7	15.9	39.9	47.4	54.9
	RGSbtb-6+8	8,6	12,2	15,8	7,7	23,1	26,7	19.0	26.9	17.0	43.0	50.9	58.9
	RGSbtb-8+8	9,3	13,1	16,9	8,3	24,6	28,4	20.5	28.9	18.3	45.9	54.2	62.6

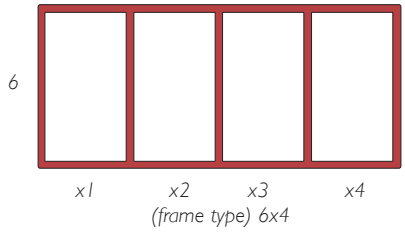
RGSR

RGSR is used in decks and bulkheads which are subjected to higher degrees of stress and heavier loading. The additional, rounded ends help prevent stress cracking. The radius of the ends is 70 mm *(2.76")* on otherwise standard 2, 4, 6 and 8 model RGS frames. RGSR can be used in multiple frames. For weight charts and installation details, singularly or in multiple frames, contact MCT Brattberg.

Multiple Frames

HORIZONTAL MULTIPLE FRAMES

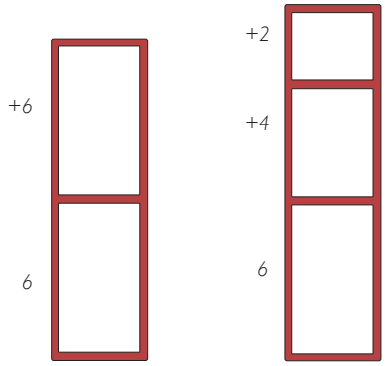
Horizontal multiple frames are described by listing the frame type and size *x* the desired number of horizontal openings.



Designation:
(frame type) 6x4

VERTICAL MULTIPLE FRAMES

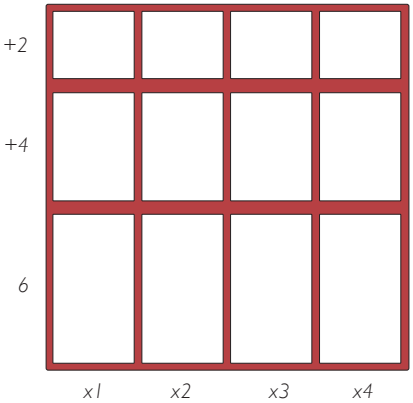
Vertical multiple frames are described by listing the bottom frame type and size + the next frame type and size.



Designation (starting at bottom):
(frame type) 6+ 6
(frame type) 6+4+2

VERTICAL AND HORIZONTAL MULTIPLE FRAMES

List the entire vertical frames *x* the desired number of horizontal repetitions.



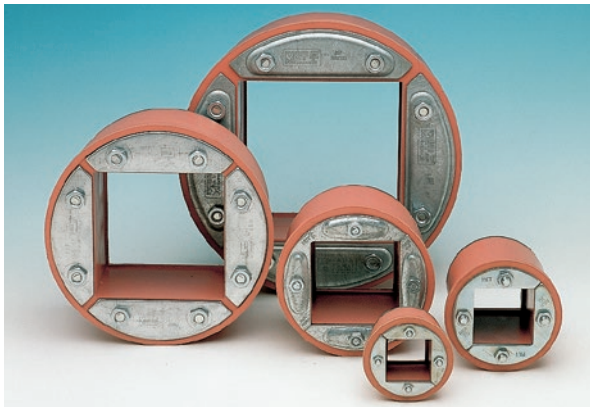
Designation (starting at bottom):
(frame type) 6+4+2x4

NOTE: All multiple frame designations must be preceded by the frame type.

RGP-round holes

RGP is a Lycron transit frame for assembly in drilled holes, pipes or in MCT Brattberg sleeves (see page 41 for dimensions of pipes and drilled holes). It is available in eigt sizes (see table) and is packed with insert blocks. The metal parts are galvanized or stainless steel.

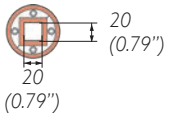
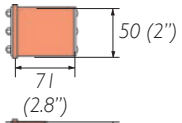
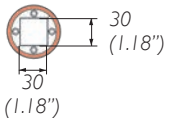
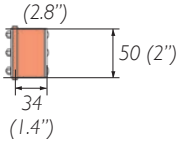
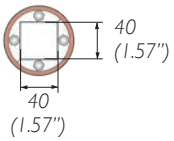
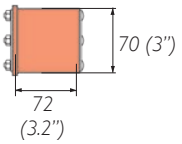
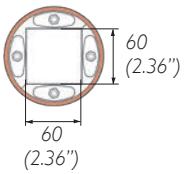
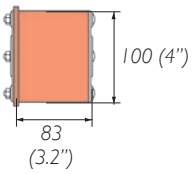
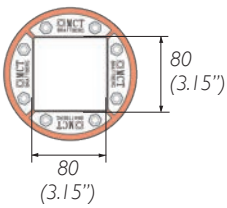
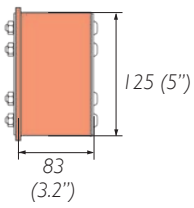
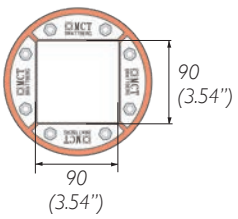
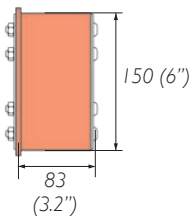
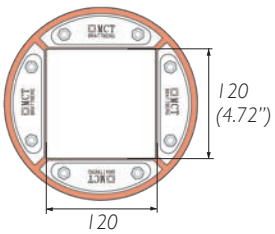
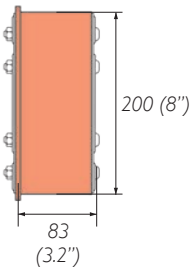
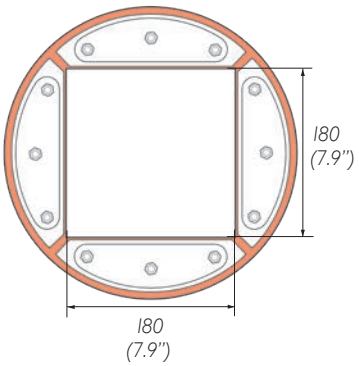
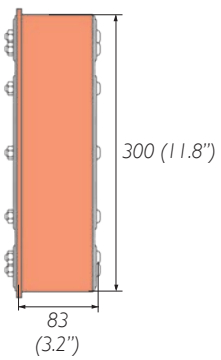
RGPO is a Lycron frame with open sides intended for installation in holes where cables have already been installed. This is also available in seven sizes.



RGP is a circular seal for holes or pipes.

RGPO is an openable RGP frame.

Weight in kilograms		Weight in pounds	
RGP 50/L60	0,25	RGP 2"/L 2.36	0.6
RGP 50/L30	0,11	RGP 2"/L 1.18	0.2
RGP 70	0,4	RGP 3"	0.9
RGP 100	0,7	RGP 4"	1.5
RGP 125	1,0	RGP 5"	2.2
RGP 150	1,8	RGP 6"	4.0
RGP 200	3,0	RGP 8"	6.6
RGP 300	7,5	RGP 11.8"	16.5

Dimensions in mm (inches)		
FRAME SIZE	PACKING AREA	DEPTH AND DIAMETER
RGP 50/L60 *(2"/L2.36)*		
RGP 50/L30 *(2"/L1.18)*		
RGP 70 *(3")*		
RGP 100 *(4")*		
RGP 125 *(5")*		
RGP 150 *(6")*		
RGP 200 *(8")*		
RGP 300 *(11.8")*		

Sleeves for RGP and RGPO Frames

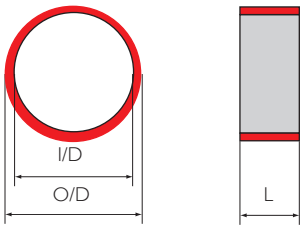
MCT Brattberg standard sleeves are available in seven sizes, for welding or bolting to the structure.
The standard materials are mild steel, stainless steel and aluminium.
SFRB is also available in an open version (SFRBO).

SFR/SFRB are supplied in kits, complete with drilled holes, bolts, nuts washers and a gasket or sealing compound.

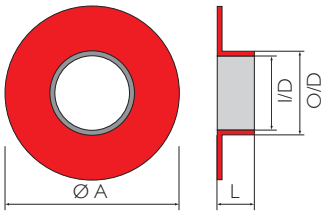
SFRBO

SFR SFRB S

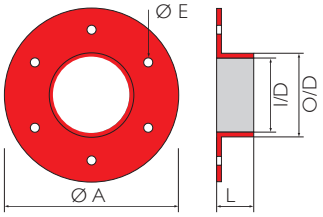
TYPE S WITHOUT FLANGE



TYPE SFR WITH ROUND FLANGE



TYPE SFRB WITH ROUND FLANGE AND PRE DRILLED HOLES



Type S without flange							
Type/Dimension	O/D mm	L mm	Weight kg	Type/Dimension	O/D inch	L inch	Weight lbs
S 50/L30	63	35	0,3	32"/L 1.18	2.5	1.2	0.7
S 50/L60	63	70	0,6	32"/L 2.36	2.5	2.8	1.3
S 70	83	70	0,8	S-3	3.52	3.2	1.8
S 100	114	82	1,3	S-4	4.55	3.2	1.8
S 125	139	82	1,6	S-5	5.55	3.2	1.8
S 150	164	82	1,9	S-6	6.55	3.2	1.8
S 200	214	82	2,6	S-8	8.55	3.2	1.8
S 300	316	85	4,5	S-11.8	12.44	3.4	9.9

Dimensions for pipes and drilled holes see page 41

Dimensions for pipes and drilled holes see page 41

Sleeves can also be supplied to US Standard Diameters.

Type SFR and SFRB with round flange													
Type/Dimension	O/D mm	L mm	A mm	E mm	Weight kg	Qty of holes	Type/Dimension	O/D inch	L inch	A inch	E inch	Weight lbs	Qty of holes
SFR/SFRB 50/L30	63	38	145	9	0,9	4	SFR/SFRB 2"/L 1.18	2.48	1.5	6	0.35	2.0	4
SFR/SFRB 50/L60	63	73	145	9	1,2	4	SFR/SFRB 2"/L 2.36	2.48	2.9	6	0.35	2.6	4
SFR/SFRB 70	83	74	185	9	2,1	4	SFR/SFRB 3"	3.27	2.9	7.5	0.35	4.6	4
SFR/SFRB 100	114	86	215	9	2,9	4	SFR/SFRB 4"	4.49	3.4	8.5	0.35	6.4	4
SFR/SFRB 125	140	86	240	9	3,7	4	SFR/SFRB 5"	5.51	3.4	9.5	0.35	8.2	4
SFR/SFRB 150	164	86	264	11	4,2	6	SFR/SFRB 6"	6.46	3.4	10.5	0.43	9.3	6
SFR/SFRB 200	214	86	315	11	5,1	6	SFR/SFRB 8"	8.43	3.4	12.5	0.43	11.2	6
SFR/SFRB 300	316	89	398	11	8,5	10	SFR/SFRB 11.8"	12.44	3.5	15.7	0.43	18.7	10

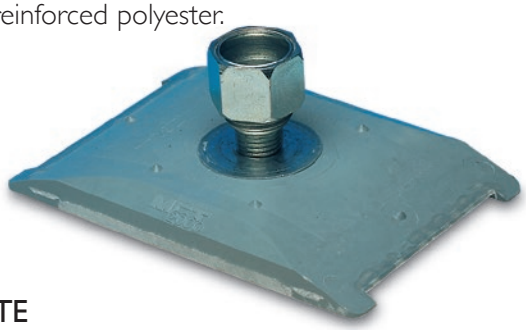
Dimensions for pipes and drilled holes see page 41

Dimensions for pipes and drilled holes see page 41

Components

COMPRESSION PLATE

Usually assembled above top row of blocks. The plate bolt is tightened to compress blocks around cables, while providing room for STG endpacking. Comes in GRP, glassfibre reinforced polyester.



STAYPLATE

To be placed between each row of blocks. Stayplates simplyfies installation, increases stability and anchores blocks within the frame. Plates come in galvanized or stainless steel, and aluminium.

Stayplate

Stayplate 60

LUBRICANT

30 g / 25 ml (0.07 pound / 0.85 oz)
For easier insallation and must be used with pressure-tight installation,

STG-ENDPACKING

Installed between compression plate and the top of the frame, completing the seal. Made of Lycron with galvanized or stainless steel fittings.

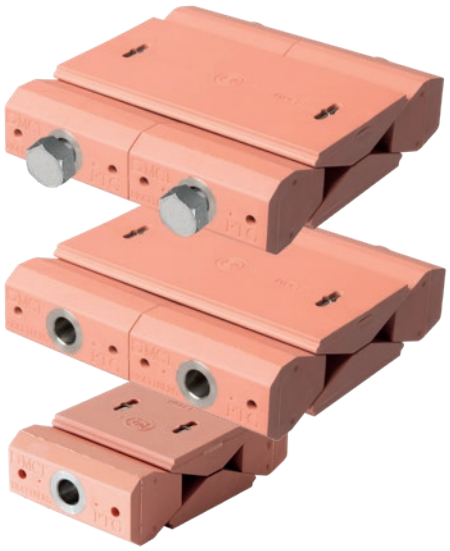
PTG-PRESSWEDGE

May be placed anywhere in the frame. Made of Lycron, with stainless steel fittings. Must always be installed in combination with a stayplate.

PTG Hex

PTG Allen

PTG Allen 60

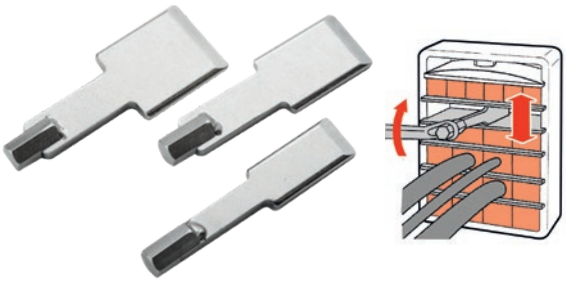


Component	Weight in kilograms	Weight in pounds
Compression Plate	0.24	0.53
STG	0.6	1.32
PTG 120 Hex and Allen	0.83	1.81
PTG 60 Hex and Allen	0.41	0.9
Stayplate	0.13	0.29
Stayplate 60	0.02	0.04

Accessories

SPACER TOOL

Simplifies insertion of last row of blocks.
20, 30, 40 mm (0.79", 1.18", 1.57")



PACKING TOOL

Compresses insert block to hold cable/pipes during partial installations.

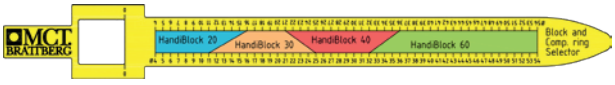
BLOCK SELECTOR

For cable/pipe measurement.

STD insert

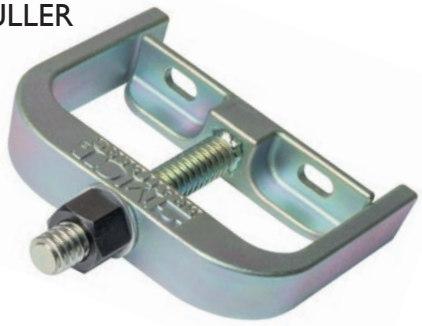
AddBlock

HandiBlock



END PACKER PULLER

For re-entry into system.



QUICK RELEASE SPANNER

For Compression Plate Installation.

RING SPANNER.

For end packer & RGP installation.

CABLE SEPARATOR

Support cables during installation.

BLANKING PLATE

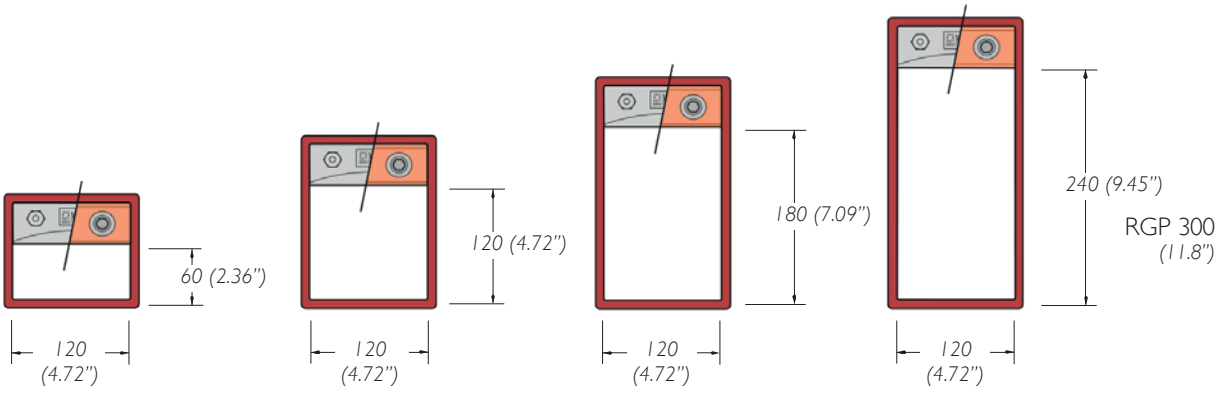
Seals frame prior to block installation.

Ingress protection IP65/66

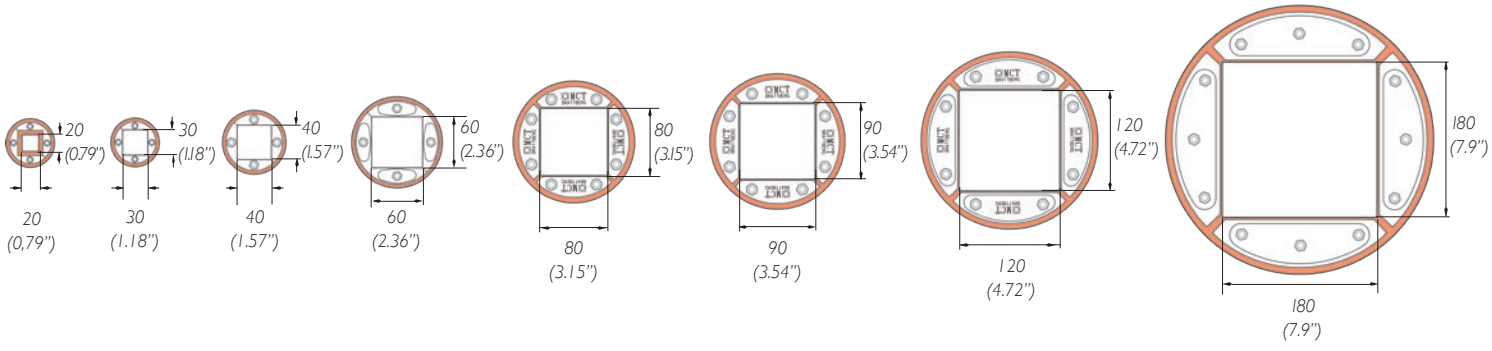
More information about our tools, see our website, mctbrattberg.com

Planning the Packing Space

The space in a frame, which can be used exclusively for holding Insert Blocks, is called the packing space. In the RGS-type frames the compression system always occupies 40 mm (1.57") of each frame.
In the RGP frames no compression system or stayplates are necessary. Therefore the packing space consists of the entire interior area of the frame.
Tables to help you determine which Insert Block to use are on pages 27 (the standard Blocks) 28 (AddBlocks) and 30 (HandiBlocks).



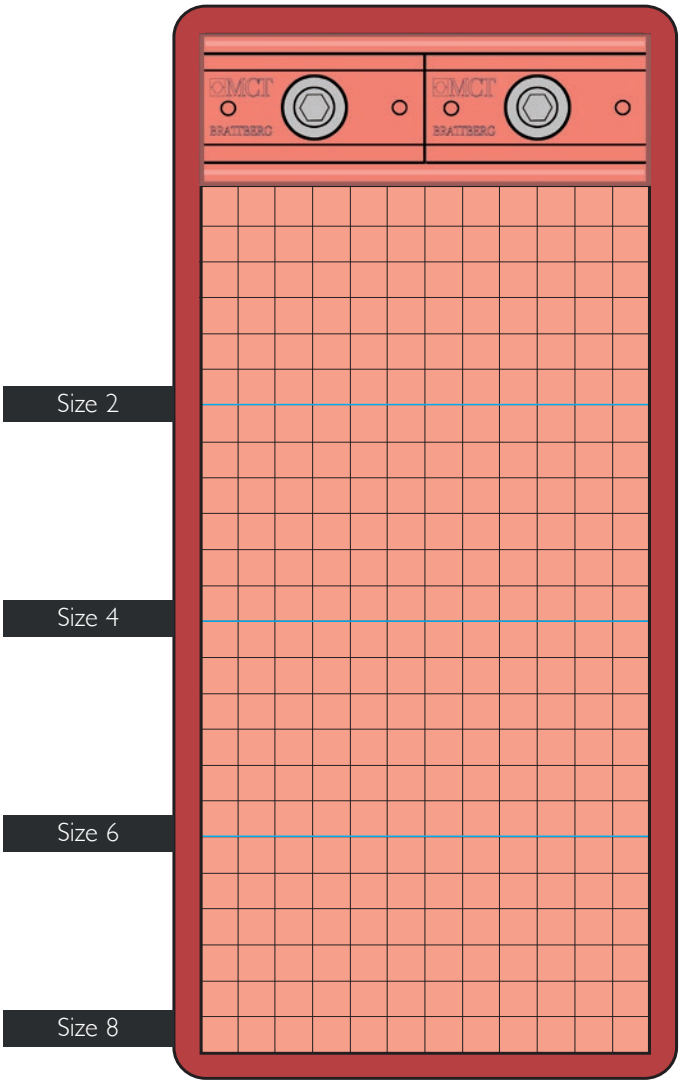
RGS 2 RGS 4 RGS 6 RGS 8



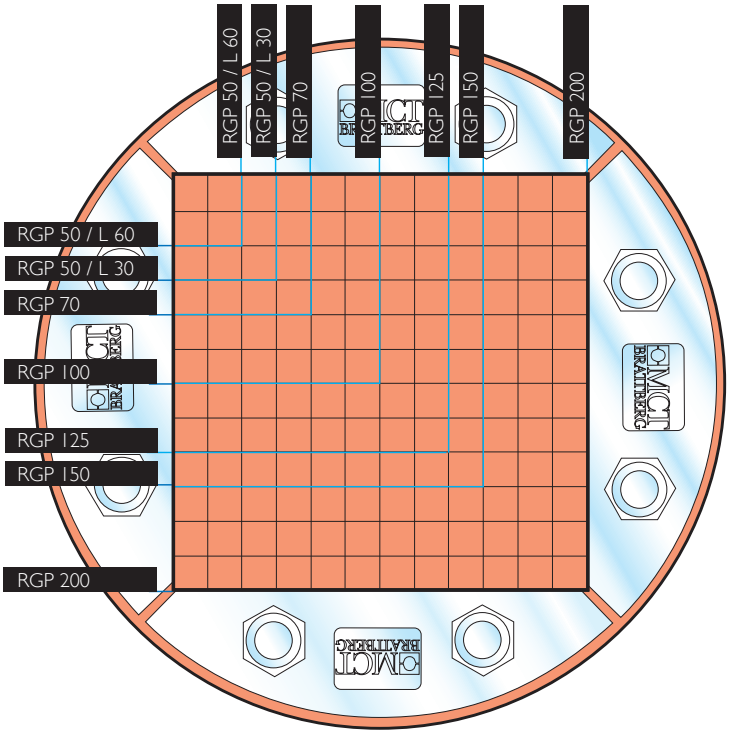
RGP 50/L60 (2"/L2.36) RGP 50/L30 (2"/L1.18) RGP 70 (3") RGP 100 (4") RGP 125 (5") RGP 150 (6") RGP 200 (8") RGP 300 (11.8")

RGS maximum number of cables and pipes							
	Block sizes						
	15	20	30	40	60	90	120
Frame sizes	Maximum number of cables and pipes						
RGS 2	32	18	8	3	2	-	-
RGS 4	64	36	16	9	4	1	1
RGS 6	96	54	24	12	6	2	1
RGS 8	128	72	32	18	8	2	2

RGP maximum number of cables and pipes							
	Block sizes						
	15	20	30	40	60	90	120
Frame sizes	Maximum number of cables and pipes						
RGP 50/L30 RGP (2"/L2.36)	4	1	1	-	-	-	-
RGP 50/L60 RGP(2"/L1.18)	1	1	-	-	-	-	-
RGP 70 RGP (3")	4	4	1	1	-	-	-
RGP 100 RGP (4")	16	9	4	1	1	-	-
RGP 125 RGP (5")	25	16	4	1	1	-	-
RGP 150 RGP (6")	36	16	9	4	1	1	-
RGP 200 RGP (8")	64	36	16	9	4	1	1



A couple of examples of pack plans (RG Plan) are shown here. RGS to the left and RGP below. The largest cables are placed at the bottom.



Combination frame width compared with width of cable tray						
Cable type	Frame size	Cable tray width in mm/inches				
		150/6"	200/8"	300/12"	400/16"	600/24"
Signal		6	6x2	6x3	6x4	6x5
Power		4	4x2	4x3	4x4	4x5
Combination		6	6x2	6x3	6x4	6x5

Packing Plan

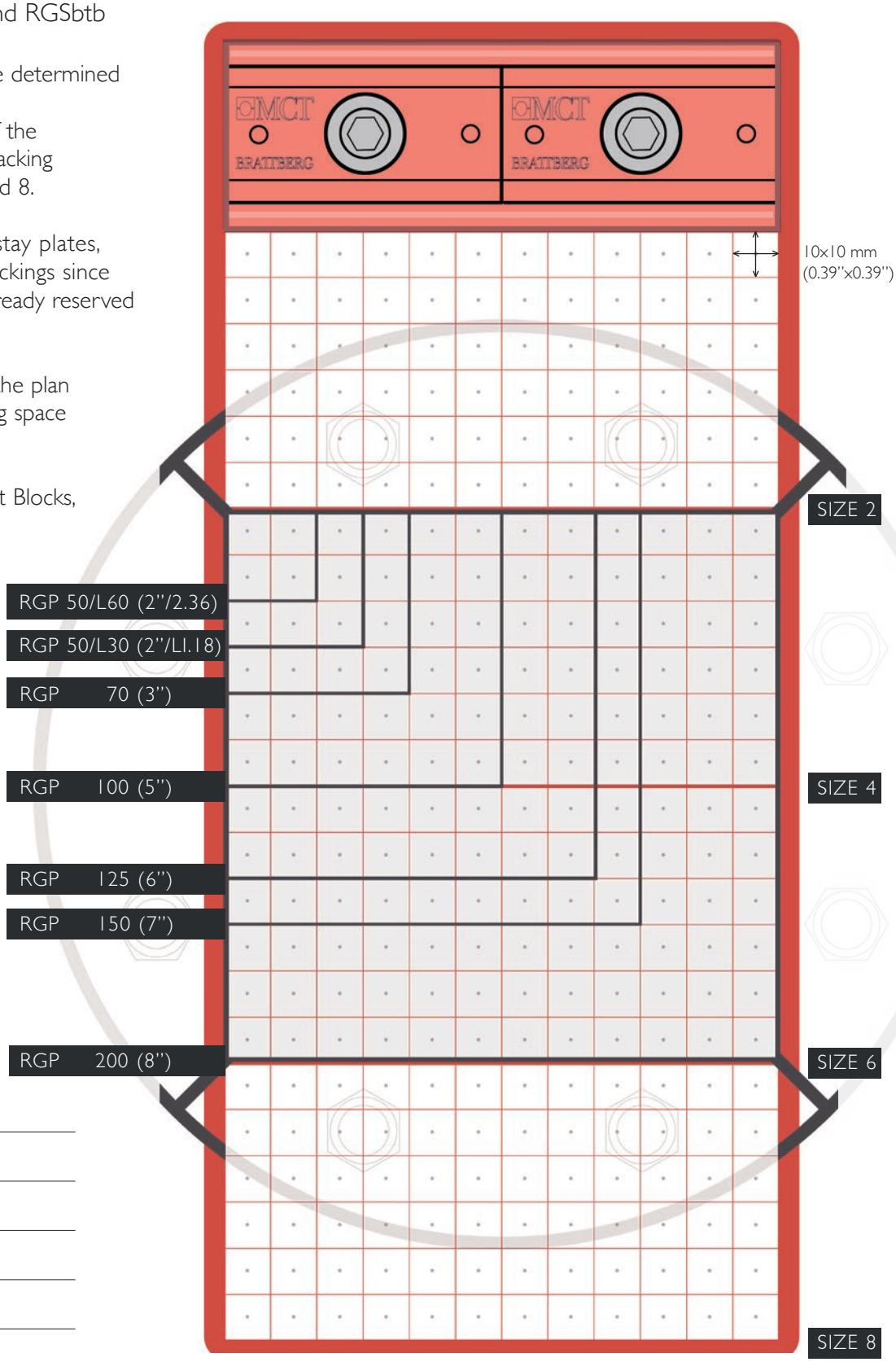
RGS, RGSF, RGSK, RGSR and RGSbtb

The correct frame size can be determined by using this plan.
The notes to the right side of the plan represent the available packing space for frame size 2, 4, 6 and 8.

It is not necessary to show stay plates, compression plates or endpackings since sufficient space for these is already reserved in the tables.

The notes to the left side of the plan represent the available packing space for the different RGP frames.

Dimensions of Standard Insert Blocks, AddBlocks, Plugs, HandiBlock and U-blocks, see pages 26-31.



RGP 50/L60 (2"/2.36)

RGP 50/L30 (2"/LI.18)

RGP 70 (3")

RGP 100 (5")

RGP 125 (6")

RGP 150 (7")

RGP 200 (8")

STG

Compression plate

PTG Allen

PTG Hex

Stayplate

Lubricant

Blocks

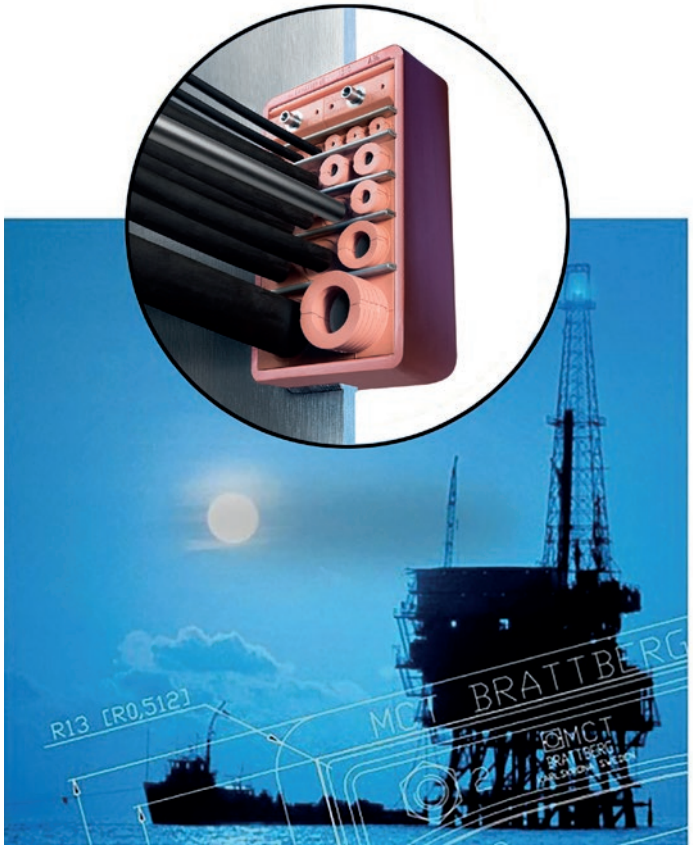
RGPlan

WEB-BASED DESIGN SOFTWARE

Configure cable/pipe penetrations quickly and easily with

our Web-based design software. Its faster and simpler than time-consuming manual methods. It´s perfect solution for busy engineers/designers.

It´s free and completely web based. Log in to access your projects anywhere. You can share projects with team members to allow them to edit and configure the transits. Bult with smart functions, to help reduce your transit planning time. Simply input the transit requirements and RGPlan automatically configures the seal, along with all necessary components, Insert Blocks, stayplates and compression systems – at the touch of a button. The program now offers many unique editing features, multiple



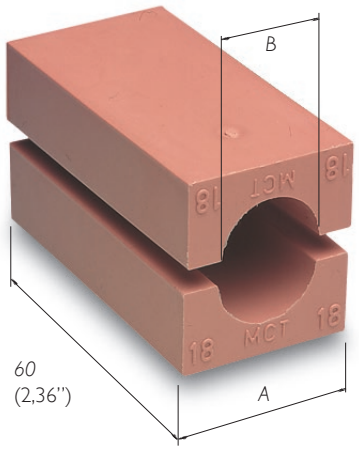
Web-based design software
gives a lot of opportunities, including following:

- Create a favorite list of your most used cables for easy access.
- Import new cables from Excel buy using a cable list template.
- Categorize and highlight placed cables for easy overview, for example to separate high voltage cables and sensitive data cables.
- Add team members to a project to allow them to edit and configure the transits within the project.
- Every progress you make is autosaved in realtime.
- Download project reports, Bom:s and drawings at any time.

Web-based design software
The service is free of charge and no download is required.
rgplan.mctbrattberg.com

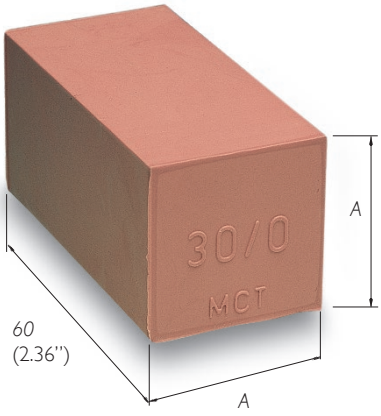
Standard Blocks

Our range of blocks accomodates cables beween 3,5 - 101,5 mm (0.14-4.0") in diameter. It is important that the insert block is the right size, with respect to the cable, to ensure a proper seal.
Measure the cable diameters carefully and choose insert blocks accordingly. With the sizing chart on next page you can choose the correct size of insert blocks.
Blocks are referred to by their width (A) and hole diameter (B). Thus a block with a width of 15 mm (0.59") and a hole diameter of 4 mm (0.16") is referred to as 15/4. This designation is moulded into the block.
Certain markets denote Insert Bocks in pairs. Please consult MCT Brattberg for this information.



SpareBlocks

Spare room in each frame is filled out with solid insert blocks. Called spares, they bear the designation A/0.
Blocks are referred to by their width (A), followed by the designation /0 (indicating solid). Thus a block with a width and height of 15 mm (0.59") is referred to as 15/0.
The length of insert blocks is always 60 mm (2.36")

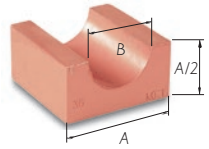


Block size in mm Width (A) = Height (A)	Size in inches	BLOCK DESIGNATION
5 x 5 Only in strips of 24 pcs	0.20" x 0.20" Only in strips of 24 pcs	24x5/0
10 x 10 Only in strips of 12 pcs	0.39" x 0.39" Only in strips of 12 pcs	12x10/0
15 x 15	0.59" x 0.59"	15/0
20 x 20	0.79" x 0.79"	20/0
30 x 30	1.18" x 1.18"	30/0
40 x 40	1.58" x 1.58"	40/0
60 x 60	2.36" x 2.36"	60/0
90 x 30	3.54" x 1.18	90x30/0

CABLE DIAM.	A (mm)				B
	15	20	30	40	
3.5-4.5	15/4	20/4			4
4.5-5.5	15/5	20/5			5
5.5-6.5	15/6	20/6			6
6.5-7.5	15/7	20/7			7
7.5-8.5	15/8	20/8			8
8.5-9.5	15/9	20/9			9
9.5-10.5		20/10			10
10.5-11.5		20/11			11
11.5-12.5		20/12	30/12		12
12.5-13.5		20/13	30/13		13
13.5-14.5		20/14	30/14		14
14.5-15.5			30/15		15
15.5-16.5			30/16		16
16.5-17.5			30/17		17
17.5-18.5			30/18		18
18.5-19.5			30/19		19
19.5-20.5			30/20		20
20.5-21.5			30/21		21
21.5-22.5			30/22	40/22	22
22.5-23.5			30/23	40/22	23
23.5-24.5			30/24	40/24	24
24.5-25.5				40/24	24

CABLE DIAM.	A (mm)			B
	40	60	90	
25.5-27.5	40/26			26
27.5-29.5	40/28			28
29.5-31.5	40/30			30
31.5-33.5	40/32	60/32		32
33.5-35.5	40/34	60/34		34
35.5-37.5		60/36		36
37.5-39.5		60/38		38
39.5-41.5		60/40		40
41.5-43.5		60/42		42
43.5-45.5		60/44		44
45.5-47.5		60/46		46
47.5-49.5		60/48		48
49.5-51.5		60/50	90/50	50
51.5-53.5		60/52	90/52	52
53.5-55.5		60/54	90/54	54

CABLE DIAM.	A (mm)		B
	90	120	
55.5-57.5	90/56		56
57.5-59.5	90/58		58
59.5-61.5	90/60		60
61.5-63.5	90/62		62
63.5-65.5	90/64		64
65.5-67.5	90/66		66
67.5-69.5	90/68		68
69.5-71.5	90/70		70
71.5-73.5		120/72	72
73.5-75.5		120/74	74
75.5-77.5		120/76	76
77.5-79.5		120/78	78
79.5-81.5		120/80	80
81.5-83.5		120/82	82
83.5-85.5		120/84	84
85.5-87.5		120/86	86
87.5-89.5		120/88	88
89.5-91.5		120/90	90
91.5-93.5		120/92	92
93.5-95.5		120/94	94
95.5-97.5		120/96	96
97.5-99.5		120/98	98
99.5-101.5		120/100	100

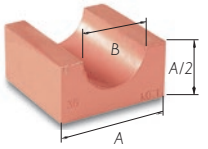


Blocks are referred to by their width (A) and hole diameter (B). Thus a module with a width of 15 mm and a hole diameter of 4 mm is referred to as 15/4.

CABLE DIAM.	A (inches)				B
	0.59	0.79	1.18	1.58	
0.14–0.18	15/4	20/4			0.16
0.18–0.22	15/5	20/5			0.20
0.22–0.26	15/6	20/6			0.24
0.26–0.30	15/7	20/7			0.28
0.30–0.33	15/8	20/8			0.31
0.33–0.37	15/9	20/9			0.35
0.37–0.41		20/10			0.39
0.41–0.45		20/11			0.43
0.45–0.49		20/12	30/12		0.47
0.49–0.53		20/13	30/13		0.51
0.53–0.57		20/14	30/14		0.55
0.57–0.61			30/15		0.59
0.61–0.65			30/16		0.63
0.65–0.69			30/17		0.67
0.69–0.73			30/18		0.71
0.73–0.77			30/19		0.75
0.77–0.81			30/20		0.79
0.81–0.85			30/21		0.83
0.85–0.89			30/22	40/22	0.87
0.89–0.93			30/23	40/22	0.91
0.93–1.00			30/24	40/24	0.95
				40/24	

CABLE DIAM.	A (inches)			B
	1.58	2.36	3.55	
1.00-1.10	40/26			1.02
1.10-1.16	40/28			1.10
1.16-1.24	40/30			1.18
1.24-1.32	40/32	60/32		1.26
1.32-1.40	40/34	60/34		1.34
1.40-1.48		60/36		1.42
1.48-1.55		60/38		1.50
1.55-1.63		60/40		1.58
1.63-1.71		60/42		1.65
1.71-1.79		60/44		1.73
1.79-1.87		60/46		1.81
1.87-1.95		60/48		1.89
1.95-2.03		60/50	90/50	1.97
2.03-2.11		60/52	90/52	2.05
2.11-2.18		60/54	90/54	2.13

CABLE DIAM.	A (inches)		B
	3.55	4.73	
2.18–2.26	90/56		2.21
2.26–2.34	90/58		2.29
2.34–2.42	90/60		2.36
2.42–2.50	90/62		2.44
2.50–2.58	90/64		2.52
2.58–2.66	90/66		2.60
2.66–2.74	90/68		2.68
2.74–2.81	90/70		2.76
2.81–2.89		120/72	2.84
2.89–2.97		120/74	2.92
2.97–3.05		120/76	2.99
3.05–3.13		120/78	3.07
3.13–3.21		120/80	3.15
3.21–3.29		120/82	3.23
3.29–3.36		120/84	3.31
3.36–3.44		120/86	3.39
3.44–3.52		120/88	3.47
3.52–3.60		120/90	3.55
3.60–3.68		120/92	3.62
3.68–3.76		120/94	3.70
3.76–3.84		120/96	3.78
3.84–3.92		120/98	3.86
3.92–3.99		120/100	3.94



Blocks are referred to by their width (A) and hole diameter (B). Thus a module with a width of 0.59" and a hole diameter of 0.16" is referred to as 15/4.

Weight in grams per half

BLOCK	W	BLOCK	W	BLOCK	W	BLOCK	W
24 x 5/0	58	20/11	13	40/30	1.5	90/62	239
12 x 10/0	113	20/12	13	40/32	1.3	90/64	229
15/0	20	20/13	12	40/34	1.1	90/66	220
20/0	38	20/14	11	60/32	4.7	90/68	211
30/0	84	30/12	1.3	60/34	4.5	90/70	204
40/0	150	30/13	1.3	60/36	4.3	120/72	494
60/0	338	30/14	1.2	60/38	4.1	120/74	485
90x30/0	279	30/15	1.2	60/40	3.9	120/76	472
15/4	10	30/16	1.2	60/42	104	120/78	462
15/5	10	30/17	1.1	60/44	98	120/80	448
15/6	10	30/18	1.0	60/46	91	120/82	437
15/7	10	30/19	1.0	60/48	84	120/84	425
15/8	9	30/20	1.0	60/50	77	120/86	415
15/9	8	30/21	0.9	60/52	59	120/88	403
20/4	18	30/22	0.8	60/54	61	120/90	385
20/5	18	30/23	0.8	90/50	287	120/92	368
20/6	17	30/24	0.7	90/52	279	120/94	360
20/7	17	40/22	2.0	90/54	273	120/96	351
20/8	16	40/24	1.9	90/56	262	120/98	332
20/9	15	40/26	1.8	90/58	255	120/100	313
20/10	14	40/28	1.7	90/60	243	120/108	243

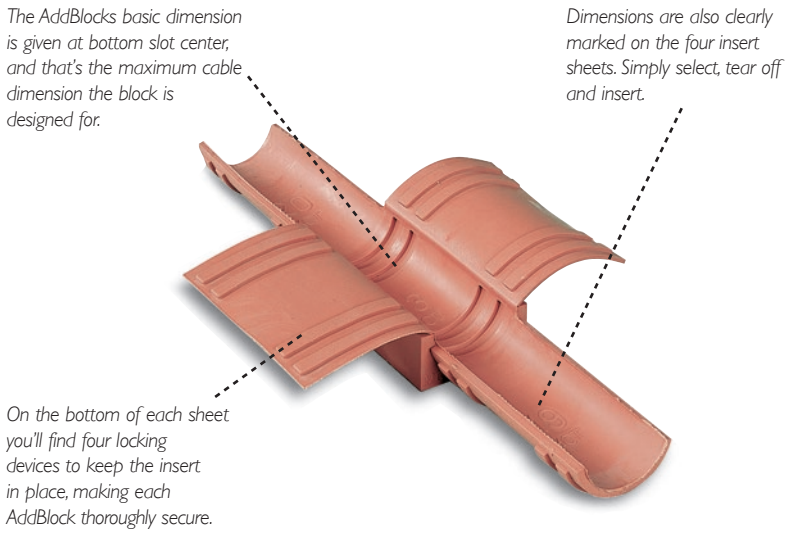
Weight in oz per half

BLOCK	W	BLOCK	W	BLOCK	W	BLOCK	W
24 x 5/0	2.0	20/11	0.5	40/30	1.5	90/62	8.4
12 x 10/0	4.0	20/12	0.5	40/32	1.3	90/64	8.1
15/0	0.7	20/13	0.4	40/34	1.1	90/66	7.7
20/0	1.3	20/14	0.4	60/32	4.7	90/68	7.4
30/0	3.0	30/12	1.3	60/34	4.5	90/70	7.2
40/0	5.3	30/13	1.3	60/36	4.3	120/72	17.4
60/0	11.9	30/14	1.2	60/38	4.1	120/74	17.1
90x30/0	9.8	30/15	1.2	60/40	3.9	120/76	16.6
15/4	0.4	30/16	1.2	60/42	3.7	120/78	16.3
15/5	0.4	30/17	1.1	60/44	3.5	120/80	15.8
15/6	0.4	30/18	1.0	60/46	3.2	120/82	15.4
15/7	0.4	30/19	1.0	60/48	3.0	120/84	15.0
15/8	0.3	30/20	1.0	60/50	2.7	120/86	14.6
15/9	0.3	30/21	0.9	60/52	2.4	120/88	14.2
20/4	0.6	30/22	0.8	60/54	2.2	120/90	13.6
20/5	0.6	30/23	0.8	90/50	10.1	120/92	13.0
20/6	0.6	30/24	0.7	90/52	9.8	120/94	12.7
20/7	0.6	40/22	2.0	90/54	9.6	120/96	12.3
20/8	0.6	40/24	1.9	90/56	9.2	120/98	11.7
20/9	0.5	40/26	1.8	90/58	9.0	120/100	11.0
20/10	0.5	40/28	1.7	90/60	8.6	120/108	8.6

AddBlock

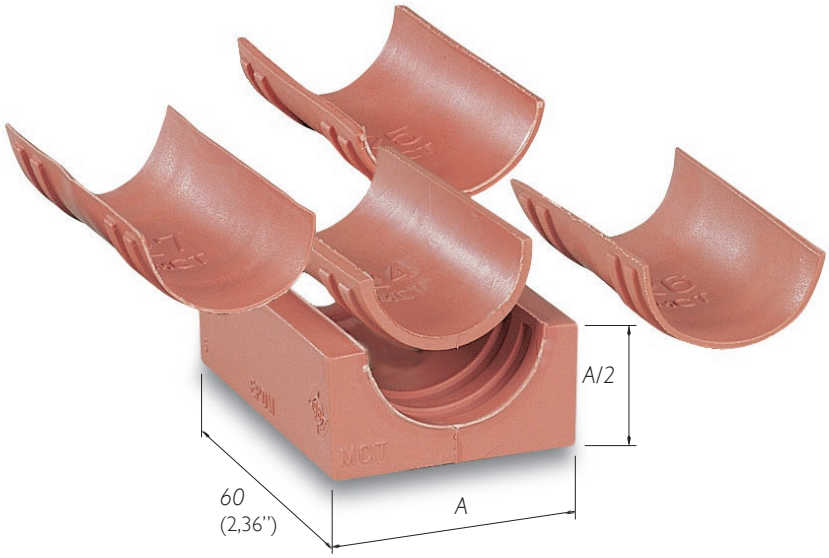
There are eleven different sizes of AddBlock. By tearing off the wing-like inserts, which are of varying thickness, and inserting them in the main block it is possible to accommodate 66 different cable and pipe dimensions, from 3.5 mm (0.14") to 69.5 mm (2.74"). The inserts are fitted with a locating ridge that fits exactly into furrows in the main block. These stop the block from "telescoping".

A seal using AddBlocks is as secure and tight as one using standard blocks. Both types can be combined in a transit, which makes the MCT Brattberg seal system very flexible.



Eleven blocks and 66 dimensions

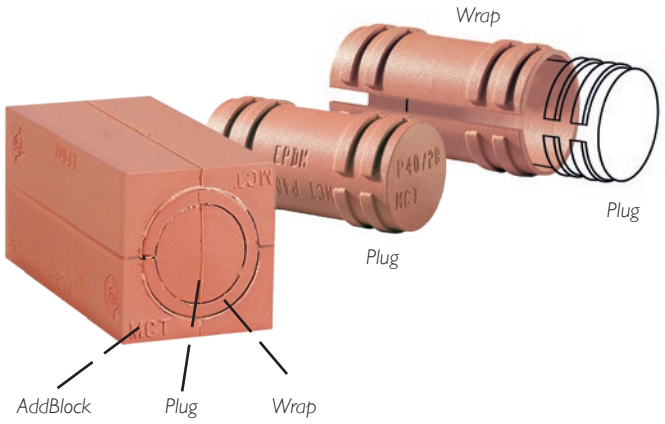
AddBlocks are all the same length as standard Blocks, 60 mm (2.36"). The width of standard Blocks (A measurement, see table) are 20, 30, 40, 60 or 90 mm, (0.79"), (1.18"), (1.57"), (2.36") or (3.54")



ADDBLOCK DIMENSION	CABLE OR PIPE DIMENSION (mm)	WEIGHT PER HALF (G)	CABLE OR PIPE DIMENSION(inches)	WEIGHT PER HALF (oz)
20/4 - 8	3,5 - 8.,5	23	0.14 - 0.33	0.8
20/9 - 13	8.,5 - 13,5	23	0.33 - 0.53	0.8
30/14 - 18	13.,5 - 18,5	45	0.53 - 0.72	1.6
30/19 - 23	18,5 - 23,5	43	0.72 - 0.93	1.5
40/24 - 28	23,5 - 28,5	71	0.93 - 1.12	2.5
40/29 - 33	28,5 - 33,5	62	1.12 - 1.32	2.2
60/34 - 38	33,5 - 38,5	150	1.32 - 1.52	5.3
60/39 - 43	38,5 - 43,5	136	1.52 - 1.71	4.8
60/44 - 48	43,5 - 49,5	128	1.71 - 1.95	4.5
90/50 - 58	49.,5 - 59,5	348	1.95 - 2.34	12.3
90/60 - 68	59,5 - 69,5	318	2.34 - 2.74	11.2

Plugs and Wraps

The plug's main purpose is to prepare coming installations by creating a spare block together with an AddBlock. Once the cable penetration is to be done, the plug is removed and the AddBlock is reused.



In the table you see which plug, or combination of plug and wrap-around casing, to use when turning an AddBlock into a spare block.

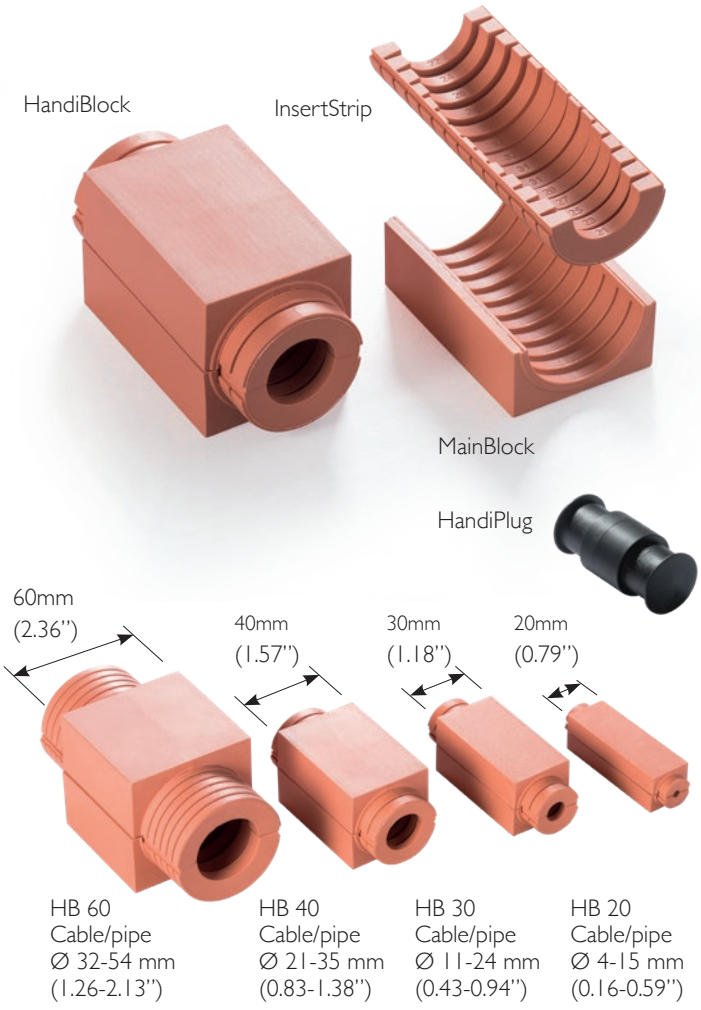
ADDBLOCK	PLUG	WRAP
20/4 - 8	P20/8	
20/9 - 13	P20/8 +	W20/8-13
30/14 - 18	P30/18	
30/19 - 23	P30/18 +	W30/18-23
40/24 - 28	P40-28	
40/29 - 33	P40-28 +	W40/28-33
60/34 - 38	P60/38	
60/39 - 43	P60/38 +	W60/38-43
60/44 - 48	P60/38 +	W60/38-43 and W60/43-48

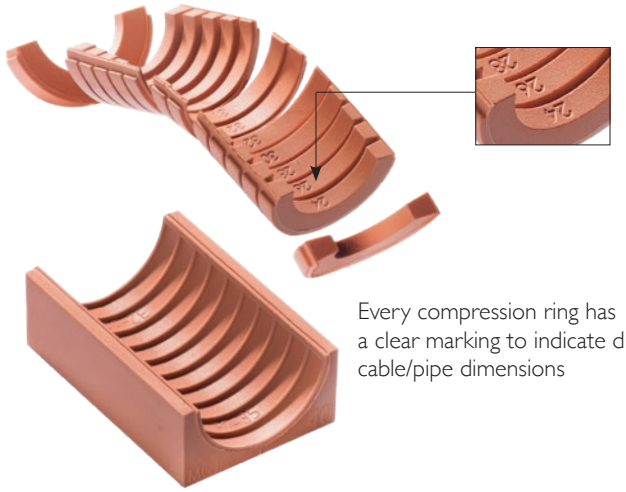
HandiBlock

The HandiBlock is designed to facilitate installation and minimize errors, allowing correction of errors and consequently minimization of wastage.

With HandiBlock the transit can always be pre-packed. If a cable or pipe is missing during assembly, the block is quickly rebuilt with a HandiPlug to a closed block and the transit can be completed at a later time.

HandiBlock is available in four sizes to fit cables and pipes or tubing from Ø 4 to 54 mm (Ø 1.58" to 2.13"). A HandiBlock consists of two compact MainBlocks with grooves on the inside and two inserts consisting of many compressed rings in different sizes. Each ring has clear markings for different cable sizes. It helps the technican to quickly and safely choose the right size of block, insert and ring. HandiBlock's design creates a seal as in compression do not deform the parts of the block. This means that all parts can be reused when repacking.





Every compression ring has a clear marking to indicate different cable/pipe dimensions

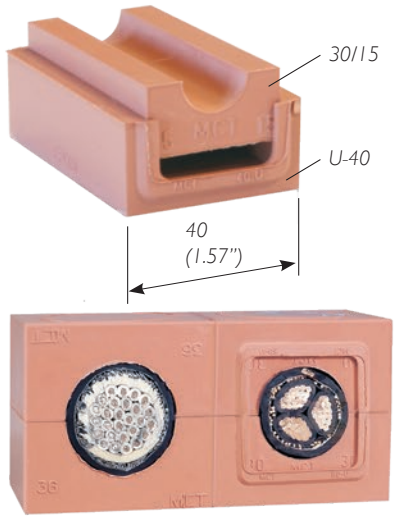
Extra fire protection! The part of the InsertStrip that protrudes from the MainBlock, acts as a small but effective heat shield.

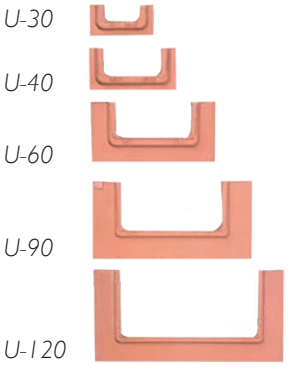
Size		HandiBlock complete with Plug		HandiBlock without Plug		Plug		Mainblock		Insert Strip	
mm	(inches)	gram	(Oz)	gram	(Oz)	gram	(Oz)	gram	(Oz)	gram	(Oz)
20	0.79	37	1.31	32	1.13	5	0.18	22	0.78	10	0.35
30	1.18	90	3.17	73	2.57	17	0.60	46	1.62	27	0.95
40	1.57	150	5.29	117	4.13	33	1.16	72	2.54	44	1.55
60	2.36	382	13.58	300	10.58	85	3.00	155	5.47	144	5.08

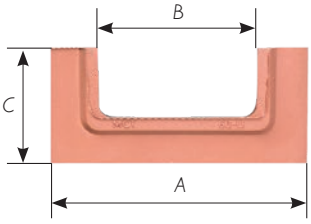
U-Blocks

The U-Block is used to convert the external dimensions of InsertBlocks, AddBlocks and HandiBlocks to the next modular size.

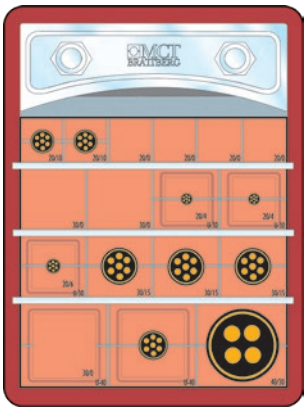
For example a 30/15 InsertBlock can be enlarged by placing it into a U40, giving the new size of 40/15.



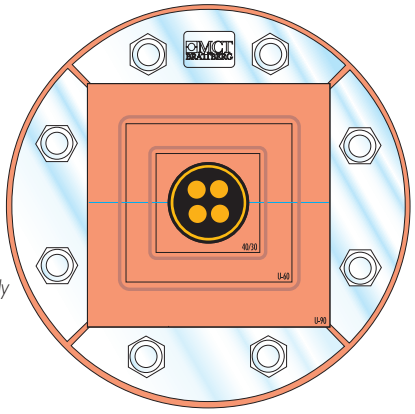




Dimensions U-BLOCK	A		B		C	
	mm	(inches)	mm	(inches)	mm	(inches)
U-30	30	1.18	20	0.79	15	0.59
U-40	40	1.57	30	1.18	20	0.79
U-60	60	2.36	40	1.57	30	1.18
U-90	90	3.54	60	2.36	45	1.77
U-120	120	4.72	90	3.54	45	1.77



Regardless of cable diameter, you can retain the outer measurement of the block in any row.



With U-Blocks, you can easily center the cable or pipe in your RGP installation.

MSR cable glands

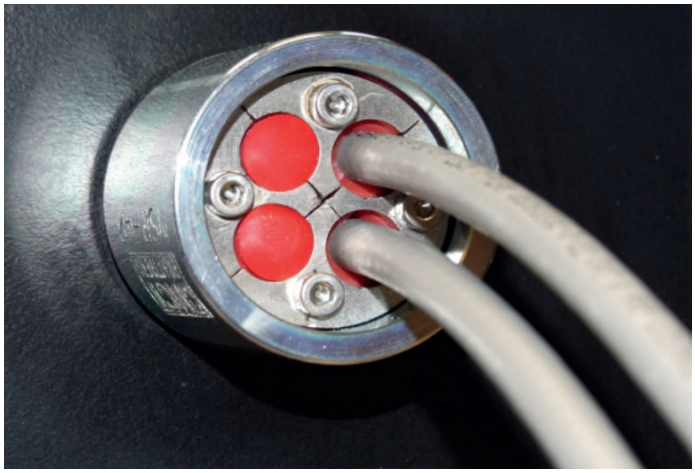
The MSR glands are designed to seal up to 8 cables between 4 and 32 mm (0.16" and 1.26") diameter.

The seal is easy to install. Just remove the center core and minimize the number of rings to enable cables to pass through. When all cables are inserted into the gland simply tighten the four Hex Screws equally. Once complete the seal will provide an effective barrier against fire, water, dust, vermin etc. No welding is required

- A 60 Lloyds certified
- Pressure tested upto 5 bar
- MED Modular B approved for use in cruise liners & passenger vessels
- Each gland accommodates a range of cable diameters
- No additional parts or on site machining required
- Gland manufactured from stainless steel
- Housing/body manufactured in electroplated mild steel

Description	Hole size rqd diameter		Minimum cable diam.		Maximum cable		No of cables	Weight incl. sleeve	
	mm	inches	mm	inches	mm	inches		Kg	(Oz)
MSR 20 Type 1	21	0.83	4	0.16	12	0.47	1	0.29	10.23
MSR 40 Type 1	41	1.61	11	0.43	24	0.94	1	0.47	16.58
MSR 40 Type 2	41	1.61	6	0.24	15	0.59	2	0.49	17.28
MSR 40 Type 3	41	1.61	6	0.24	12	0.47	4	0.47	16.58
MSR 50 Type 1	51	2.01	5	0.20	10	0.39	5	0.79	27.87
MSR 50 Type 2	51	2.01	4	0.16	16	0.63	3	0.78	27.51
MSR 50 Type 3	51	2.01	20	0.79	32	1.26	1	0.75	26.46
MSR 63 Type 1	64	2.52	4	0.16	16	0.63	4	1.0	35.27
MSR 63 Type 2	64	2.52	5	0.20	10	0.39	8	1.0	35.27

Dimensions in millimeter and inches. Weights in kilograms and Oz. Alternative cable configurations can be manufactured to suit specific customer requirements.



SR cable and pipe seals

The SR glands are designed to seal cables or pipes between 4 and 100 mm (0.16 and 3.94") diameter.
The seal can be supplied cut to allow pre terminated cable to be installed. It is supplied with a center core providing a seal prior to cable installation. When the cable is inserted into the gland. simply tighten the compression bolts equally until cable is secure. Once complete the seal will provide an effective barrier against fire, water, dust, vermin, etc.

- Lloyds certified
- Pressure tested to 5 bar
- Gland is manufactured from stainless steel 316L and rubber
- Sleeves are supplied in electroplated mild steel

Ref	No of cables	Cable diameter min		Cable diameter max		Sleeve O/D		Weight inlc. sleeve	
		mm	(inches)	mm	(inches)	mm	(inches)	Kg	(Oz)
SR 25	1	4	0.16	12	0.47	0.21	1.31	0.21	7.41
SR 38-1	1	11	0.43	24	0.94	0.33	1.90	0.33	11.64
SR 38-2	2	6	0.24	15	0.59	0.35	1.90	0.35	12.35
SR 38-3	4	6	0.24	12	0.47	0.33	1.90	0.33	11.64
SR 49	1	20	0.79	32	1.26	0.56	2.37	0.56	19.75
SR 62	1	30	1.18	42	1.65	0.88	2.87	0.88	31.04
SR 77	1	42	1.65	52	2.05	1.30	3.50	1.30	45.86
SR 102	1	52	2.05	70	2.76	2.30	4.50	2.30	81.13
SR 125	1	70	2.76	85	3.47	3.41	5.51	3.41	120.28
SR 150	1	85	3.35	100	3.94	4.11	6.63	4.11	144.98

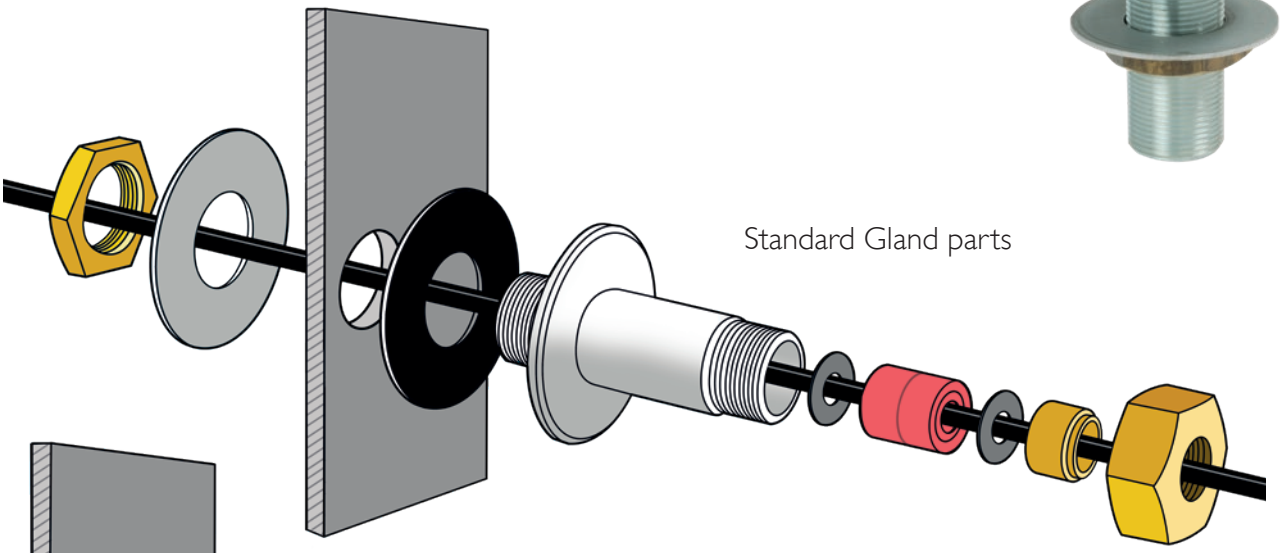
Dimensions in millimeter and inches. Weights in kilograms and Oz.
Alternative cable configurations can be manufactured to suit specific customer requirements

Deck and bulkhead penetration glands

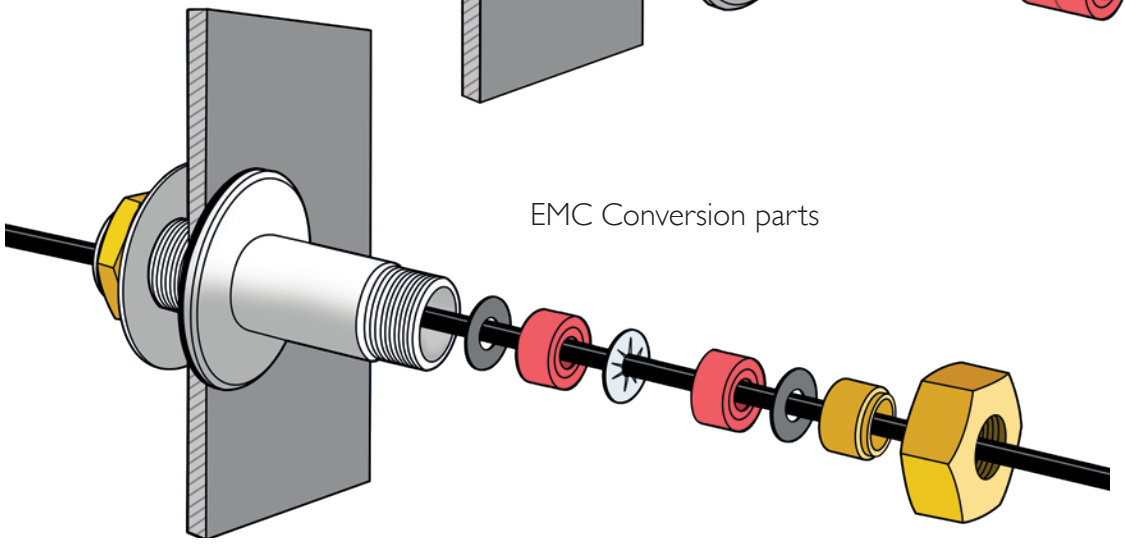
A flexible penetration for single cabels. No additional parts or on site machining required.
Glands supplied in electro plated mild steel with brass nuts.
Ability to fix to Metric threaded Conduit. Available with EMC/EMI protection.

This penetrations were in the beginning specifically developed for the British Royal Navy, but are now sold worldwide to various maritime applications, ships, oil platforms, gas carriers, cruise liners and more.

- Lloyds certified Pressure tested to 5 bar
- Certified to DEF STAN 02-510
- NATO stock coded
- Lloyds certified to A 60 Approval (metal housing)



Standard Gland parts



EMC Conversion parts

Ref	Cable range max		Cable range max		Metric thread	Flange diameter		Nut A/F		Weight	
	mm	in	mm	in		mm	in	mm	in	kg	lb
150 mm (5.90 “) gland assembly with 30 mm (1.18”) long thread											
D&B 16-150-30	4	0.16	16	0.63	M33x2	70	2.76	46	1.81	1.45	3.20
D&B 25-150-30	13	0.51	25	0.98	M50x2	80	3.25	65	2.56	2.62	5.77
D&B 35-150-30	23	0.91	35	1.31	M60x2	100	3.94	80	3.15	3.51	7.74
D&B 50-150-30	32	1.26	50	1.97	M75x2	120	4.72	100	3.94	5.05	11.13
D&B 60-150-30	48	1.89	60	2.36	M90x2	150	5.98	120	4.72	7.42	16.36
150 mm (5.90 “) gland assembly with 70 mm (2.76”) long thread											
D&B 16-150-70	4	0.16	16	0.63	M33x2	70	2.76	46	1.81	1.63	3.59
D&B 25-150-70	13	0.51	25	0.98	M50x2	80	3.25	65	2.56	3.03	6.68
D&B 35-150-70	23	0.91	35	1.31	M60x2	100	3.94	80	3.15	4.14	9.13
D&B 50-150-70	32	1.26	50	1.97	M75x2	120	4.72	100	3.94	5,71	12.59
D&B 60-150-70	48	1.89	60	2.36	M90x2	150	5.98	120	4.72	8.08	17.81
75 mm (2.95 “) gland assembly with 30 mm (1.18”) long thread											
D&B 16-75-30	4	0.16	16	0.63	M33x2	70	2.76	46	1.81	1.02	2.25
D&B 25-75-30	13	0.51	25	0.98	M50x2	80	3.25	65	2.56	1.81	3.99
D&B 35-75-30	23	0.91	35	1.31	M60x2	100	3.94	80	3.15	2.48	5.47
D&B 50-75-30	32	1.26	50	1.97	M75x2	120	4.72	100	3.94	3.55	7.83
D&B 60-75-30	48	1.89	60	2.36	M90x2	150	5.98	120	4.72	6.20	13.67
75 mm (2.95 “) gland assembly with 70 mm (1.18”) long thread											
D&B 16-75-70	4	0.16	16	0.63	M33x2	70	2.76	46	1.81	1.19	2.62
D&B 25-75-70	13	0.51	25	0.98	M50x2	80	3.25	65	2.56	2.11	4.65
D&B 35-75-70	23	0.91	35	1.31	M60x2	100	3.94	80	3.15	2.94	6.48
D&B 50-75-70	32	1.26	50	1.97	M75x2	120	4.72	100	3.94	4.20	9.26
D&B 60-75-70	48	1.89	60	2.36	M90x2	150	5.98	120	4.72	6.95	15.32

Welding instructions

Welding sequence of a two-pass fillet shall be performed in the following steps with minimize heat input.

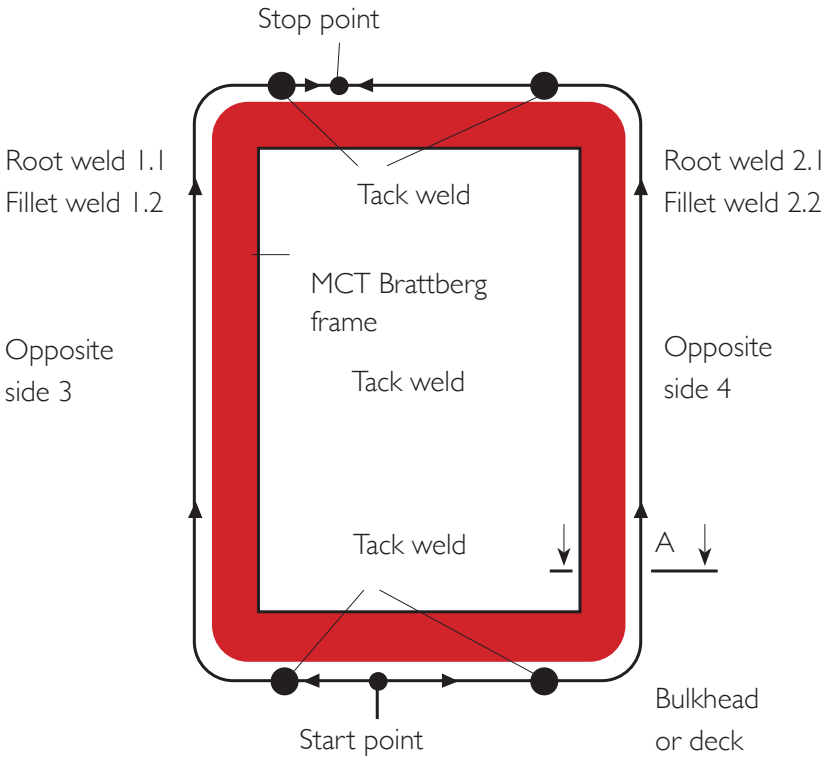
1 – Fix with tack weld points, maximum 150 mm (5.90") between.

2 – Root weld 1.1 and 2.1

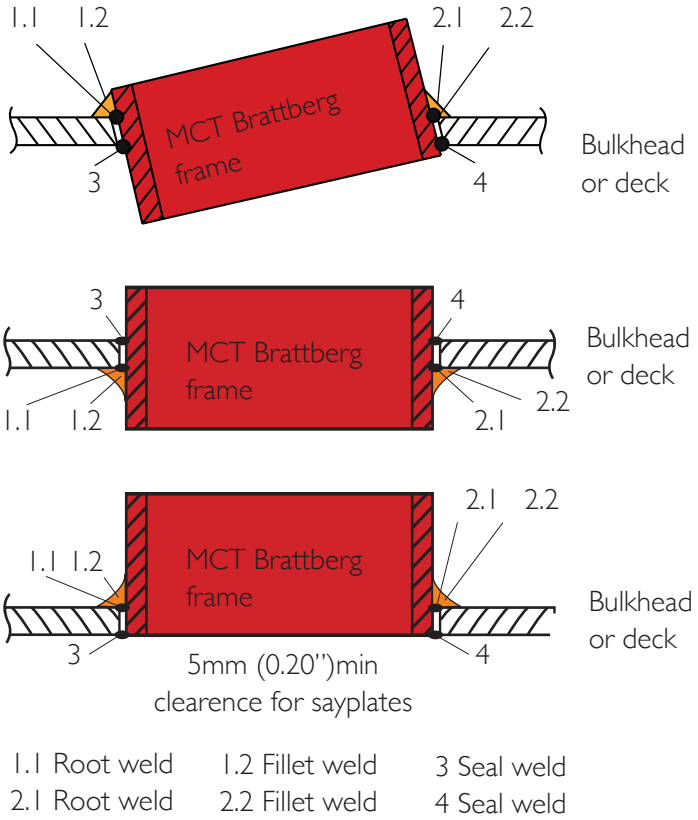
3 – Fillet weld 1.2 and 2.2

4 – Seal weld 3 and 4

Weld pass 4 is not to be started until weld 2 and 3 are completed!



Three different welding sequences

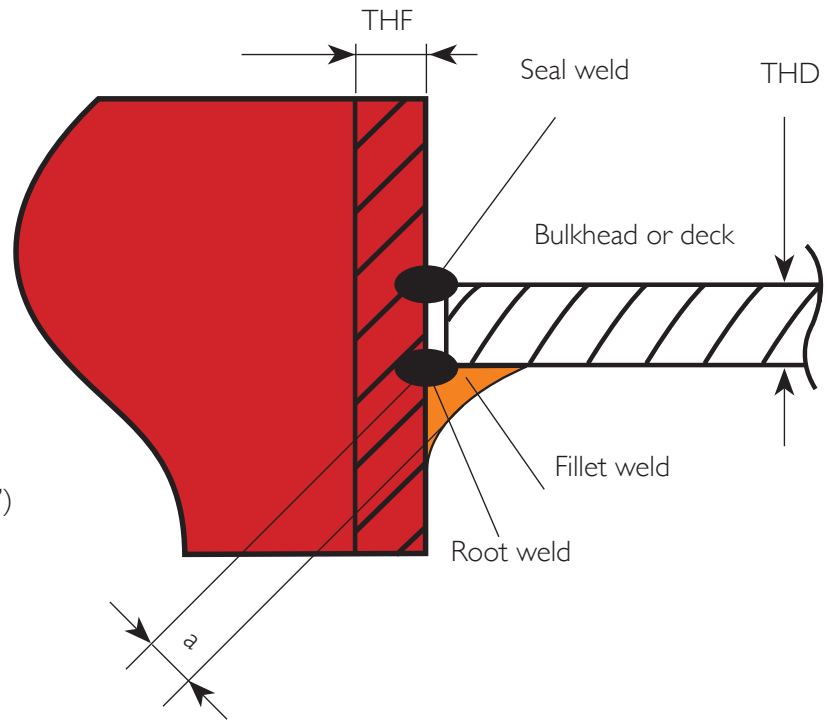


1.1 Root weld 1.2 Fillet weld 3 Seal weld
2.1 Root weld 2.2 Fillet weld 4 Seal weld

Fillet weld size for a centre-placed frame

Fillet weld size (throat thickness) is to be 0.5 x plate thickness of the bulkhead or deck plate (THD). However fillet weld size is not to be greater than 0.7 x frame plate thickness (THF).

a = Fillet size (throat thickness) Note!
THD = Thickness deck plate
THF = Thickness frame plate
Multi-pass welding is required if a ≥ 5 mm (0.20")



Maximum allowable root gap for fillet joint

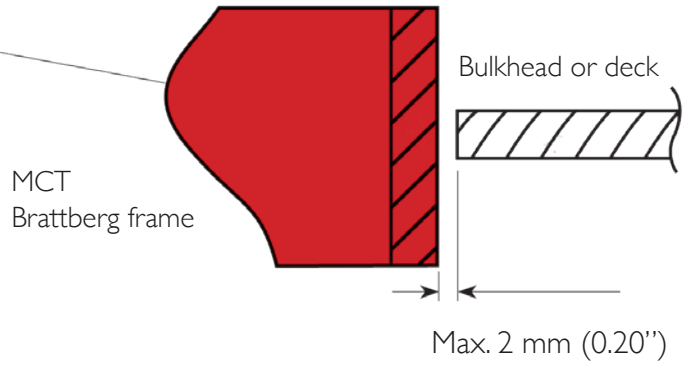
Figure 1

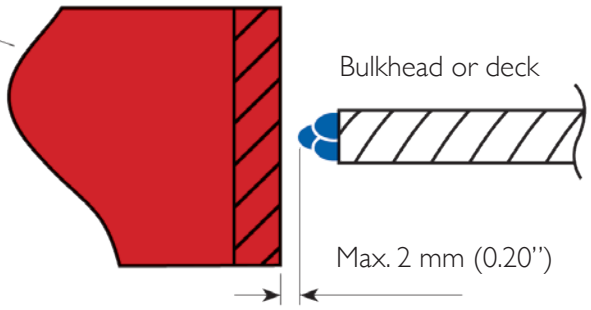
Build-up of fillet joint

Figure 2

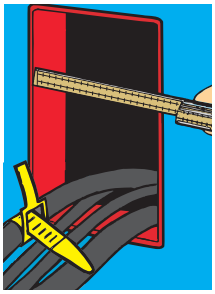
Note! Weld build up on the frame is not recommended as it may cause deformation of the frame.

If root gap is too wide the deck plate or bulkhead may be built up with weld to achieve a proper gap (see Figure 2).

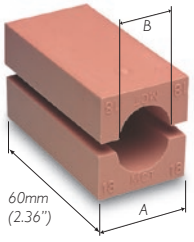




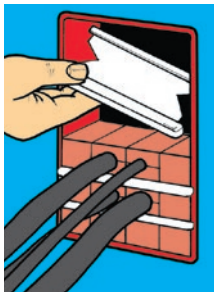
Installation Guide



1 *Measure the opening and check that the measurement is within the tolerance range 120.5 mm +/- 0.5 mm (4.74"+/-0.02"). Check that the frame is clean and pull through the cables. Measure the diameter of the cables and choose suitable blocks. Lubricate the inner faces of the frame.*



2 *Insert Block. The blocks are identified by their width (A) and hole diameter (B). A block that is 30 mm (1.18") wide and has a hole diameter of 18 mm (0.71") is marked 30/18. This marking is cast into the block.*

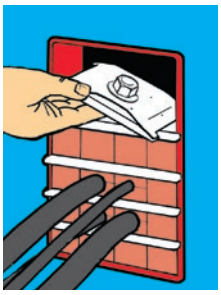


3 *Pack the frame. Place stayplates between each row of blocks*

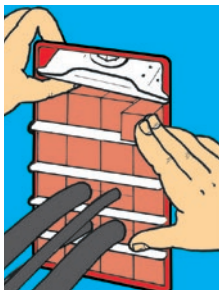
Pressure-tight installation

Check that the frame is clean and that the inside is well lubricated. All Lycron parts must be lubricated carefully with MCT Brattberg lubricant.
Place the compression plate in the centre so that the Lycron rubber is pushed upwards between the compression plate and the frame. The seal must not be subjected to pressure for at least 48 hours after installation. This is to allow the pressure to equalise throughout the penetration.
It will take more time for the pressure to equalise at temperatures below 20°C.

STG ENDPACKING

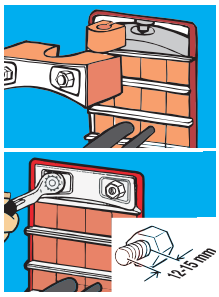


4 *Pack the frame. Place stayplates between each row of blocks.*



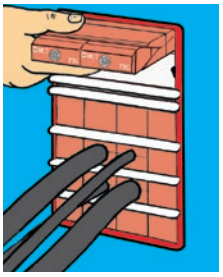
5 *Insert the top row of blocks.*

6 *Tighten the bolt in the compression plate anticlockwise until there is a gap of 32-33 mm (1.26-1.30") between the top of the plate and the inside of the frame.*

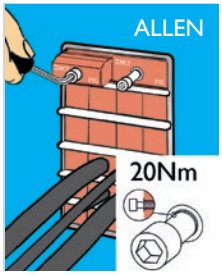


7 *Insert the STG end-packing with the tongue around the compression bolt. Tighten the nuts in the endpacking until 12-15 mm (0.47-0.59") of thread is visible.*

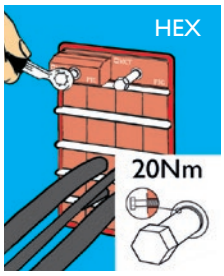
PTG PRESSWEDGE, ALLEN AND HEX



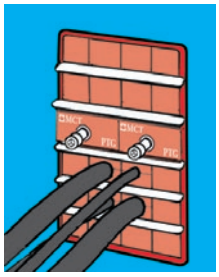
4 *Place the last two stayplates in the frame before the last row of blocks. Then fit the PTG presswedge over the stayplates.*



5 *Insert the final row of blocks. Tighten the nuts in the PTG to the end or 20 Nm.*

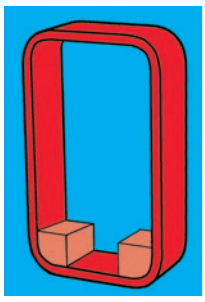


6 *Insert the final row of blocks. Tighten the nuts in the PTG to the end or 20 Nm.*



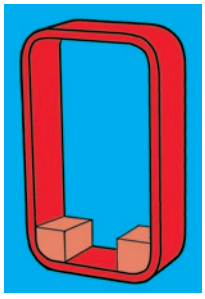
7 *The PTG presswedge may be placed anywhere in the frame.*

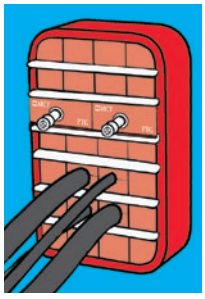
RGSC WITH STG ENDPACKING



Begin packing with the special corner blocks. Proceed as shown in image 3 and then see STG Endpacking image 4-6. Insert endpacking C-STG (with special corner blocks). Tighten the nuts on the endpacking to compress and complete the seal. About 12 mm (0.47") of the thread should protrude on each bolt.

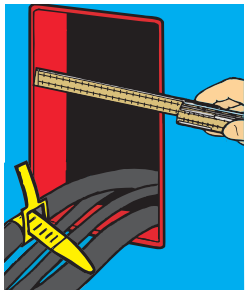
RGSC WITH PRESSWEDGE





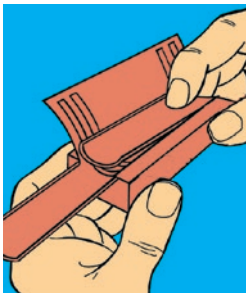
Begin packing with the special corner blocks. Proceed as shown in image 3 and then see PTG Presswedge. The PTG presswedge can be placed anywhere except at the top or bottom. At the top row insert the special corner blocks and then the last row of blocks. Tighten the nuts in the PTG to the end or 20 Nm.

AddBlock

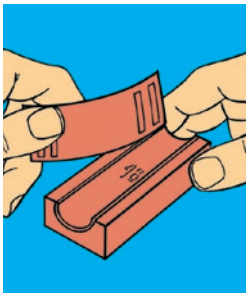


Measure the opening and check that the measurement is within the tolerance range 120.5 mm +/- 0.5 mm (4.74"+/-0.02"). Check that the frame is clean and pull through the cables.
Measure the diameter of the cables and choose suitable blocks. Lubricate the inner faces of the frame.

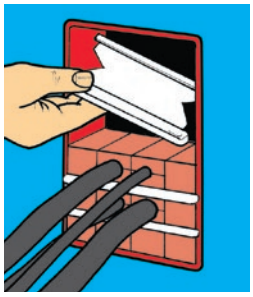
Tear off attached sheet to fit the dimension selected.



Place sheet into centre slot and affix it with the unique locking device.

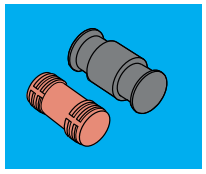


Tear off superfluous sheets.

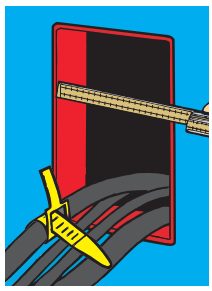


Pack the frame. Place stayplates between each row of blocks

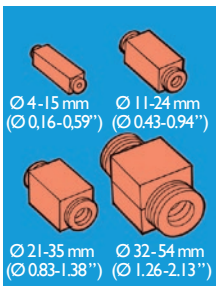
Plugs for AddBlock and HandiBlock see page 29 and 30.



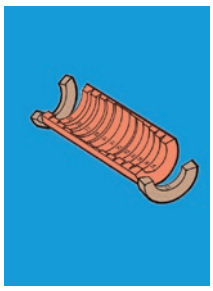
HANDIBLOCK



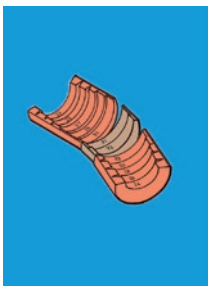
Measure the opening and check that the measurement is within the tolerance range 120.5 mm +/- 0.5 mm (4.74"+/-0.02"). Check that the frame is clean and pull through the cables. Measure the diameter of the cables and choose suitable blocks. Lubricate the inner faces



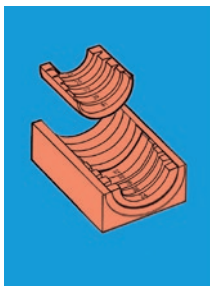
Select the HandiBlock that fits the cable / tube.



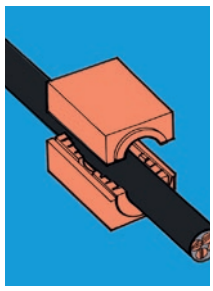
Select the two compression rings closest to the cable diameter. Remove all compression rings smaller than the selected.



If the insert gets longer than the block, remove the current rings in the middle.

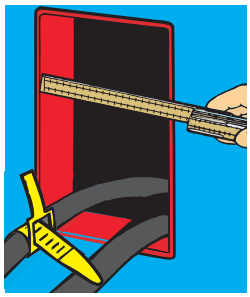


Place the two inserts in the main block so that the outermost rings are at the outer edge of the main block.

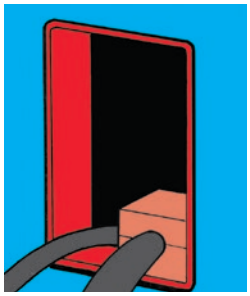


Build the second block half the same way. Insert the cable / tube and lay over the block half. Continue packing as shown in figure 4 on the left side.

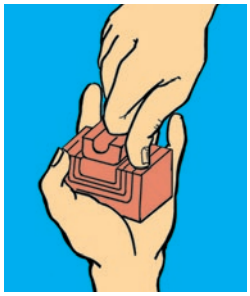
U-Block



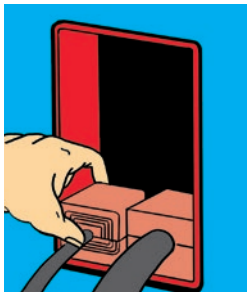
Measure the opening and check that the measurement is within the tolerance range 120.5 mm +/- 0.5 mm (4.74"+/-0.02"). Check that the frame is clean and pull through the cables. Measure the diameter of the cables and choose suitable blocks. Lubricate the inner faces of the frame.



Select a suitable block for the largest cable in the row.



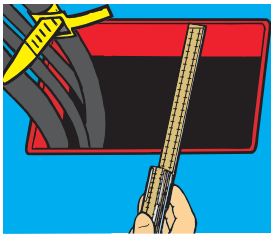
Select a suitable InsertBlock or AddBlock for the small cable. Then create a base using U-Blocks.
The external measurements should be the same as the previous block.



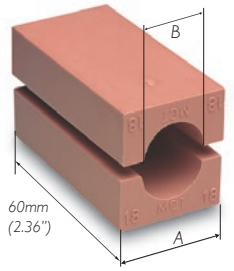
Start packing the frame.

Insert stayplates between each row of insert blocks.

Horizontal Installation Guide



1 *Measure the opening and check that the measurement is within the tolerance range 120.5 mm +/- 0.5 mm (4.74"+/-0.02"). Check that the frame is clean and pull through the cables. Measure the diameter of the cables and choose suitable blocks. Lubricate the inner faces of the frame.*

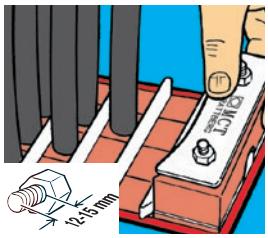


2 *The blocks are identified by their width (A) and hole diameter (B). A block that is 30 mm (1.18") wide and has a hole diameter of 18 mm (0,71") is marked 30/18. This marking is cast into the block.*

3 *To prevent the blocks from falling through during horizontal installation, fit all the stayplates and the compression plate first. Check the RG plan to make sure the cables are positioned correctly.*

4 *Insert the outer blocks first (A, B, C, etc). Then insert the rest of the blocks. Note: block A must be rotated 90°, see diagram.*

5 *Pack the frame. Tighten the bolt in the compression plate anticlockwise until there is a gap of 32-33 mm (1.26"-1.30") between the top of the plate and the inside of the frame.*

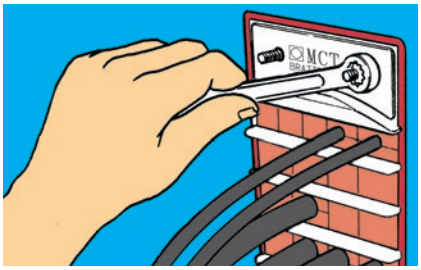


6 *Insert the STG endpacking with the tongue around the compression bolt. Tighten the nuts in the endpacking until 12-15 mm (0.47"-0.54") of thread is visible.*

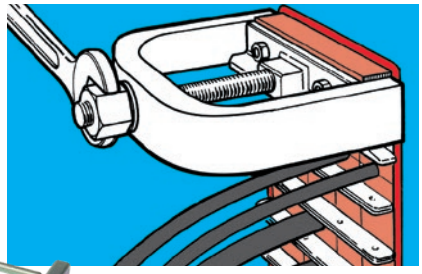
Disassembly Guide

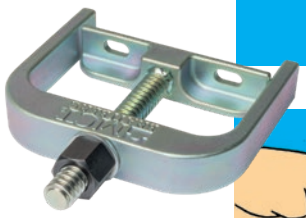
STG

1 *Remove the nuts and the hardware from the face of the endpacking.*

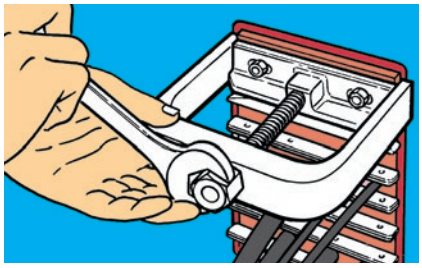


2 *Attach the endpacking puller to the bolts with the nuts from the endpacking.*

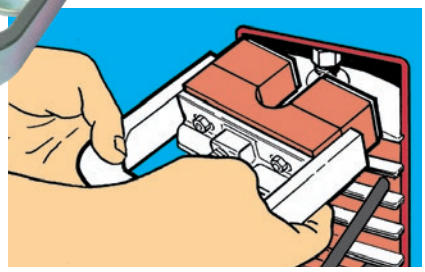




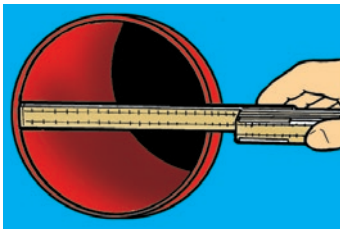
3 *Tighten the bolt on the puller and the endpacking slides out.*



4 *Remove the endpacking.*

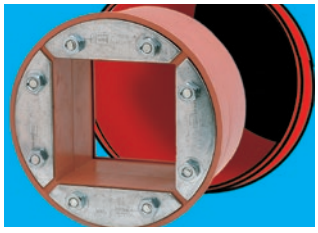


RGP Installation



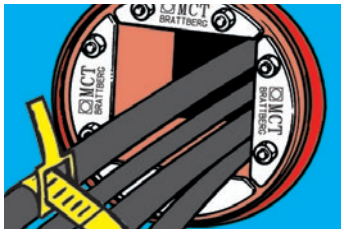
1

Measure the pipe/drilled hole to ensure that the size conforms to tolerance standards.



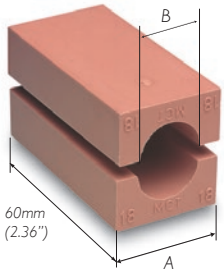
2

Insert the RGP frame in the opening. No lubricant should be applied to the hole or to the outside of the frame.



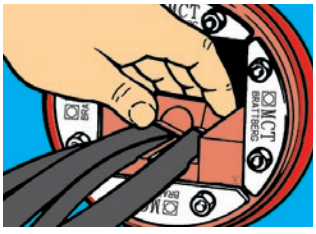
3

Place the frame in correct position in the hole. Check that the frame is clean and pull through the cables. Place the largest cables at the bottom of the frame. Measure the diameter of the cables and choose suitable blocks.



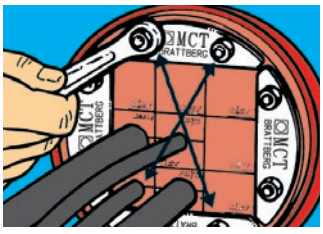
4

InsertBlock. The blocks are identified by their width (A) and hole diameter (B). A block that is 30 mm (1.18") wide and has a hole diameter of 18 mm (0,71") is marked 30/18. This marking is cast into the block.



5

Begin packing.



6

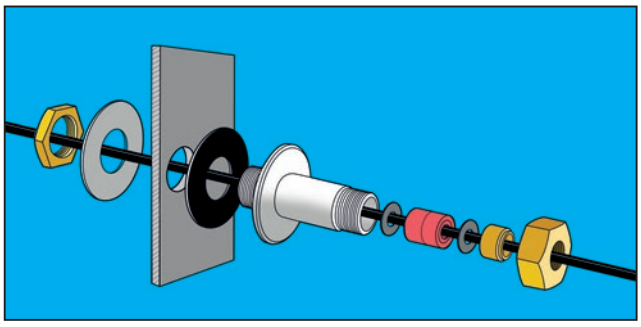
Tighten the nuts in diagonal order until 10-12 mm (0,39"-0,47") of thread is visible.

Dimensions for pipes and drilled holes			
RGP type	RGP ID mm	RGP type	RGP ID Inches
RGP 50	50-51	RGP 2"	1.97-2.01"
RGP 70	70-71	RGP3"	3-3.04"
RGP 100	100-102	RGP 4"	4-4.08"
RGP 125	125-127	RGP 5"	5-5.08"
RGP 150	150-152	RGP 6"	6-6.08"
RGP 200	200-202	RGP 8"	8-8.08"
RGP 300	300-302	RGP *11.8"*	*11.8"-11.9"*

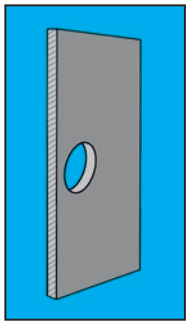
PRESSURE-TIGHT INSTALLATION RGP

All contact surfaces between the pipe and the RGP plug must be cleaned carefully prior to installation. Do not use any lubricant on these surfaces. All blocks must be lubricated carefully with MCT Brattberg lubricant. The penetration must not be subjected to pressure for at least 48 hours after installation. This is to allow the pressure to equalise throughout the penetration.
It will take more time for the pressure to equalise at temperatures below 20°C.

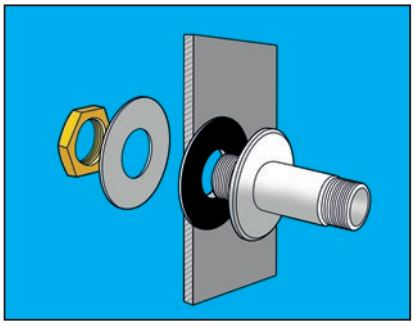
Deck and bulkhead Installation Guide



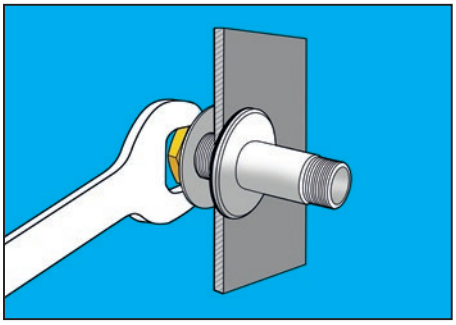
Standard Gland parts.



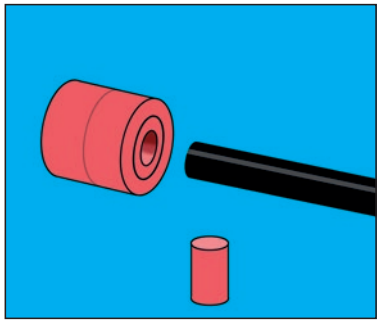
1 Clearance hole =Thread diameter + 2 mm max.



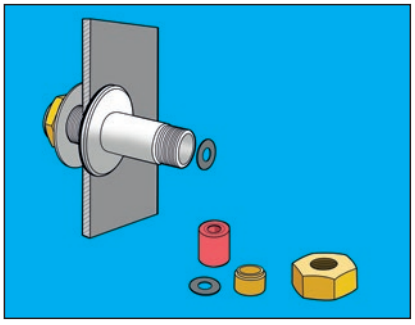
2 Fit the gasket and washer.



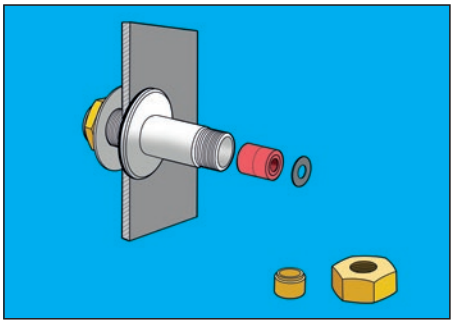
3 Tighten the lock nut.



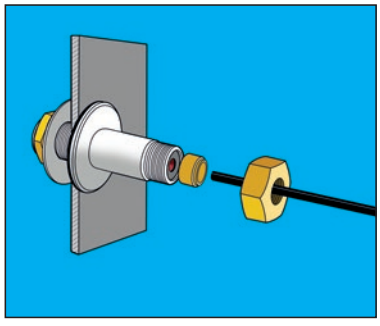
4 Remove the minimum number of rings to allow cable to pass though the seal.



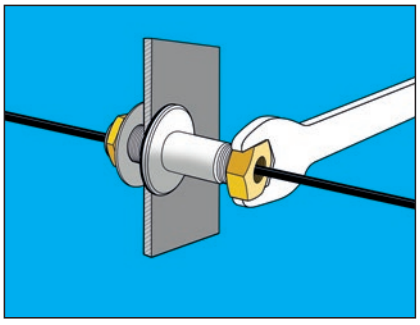
5 Size the first washers to cable and insert it if required.



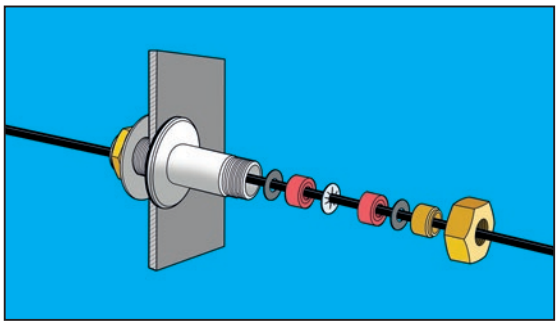
6 Push seal into place.



7 Size the second washer to the cable and insert it to the cable if required

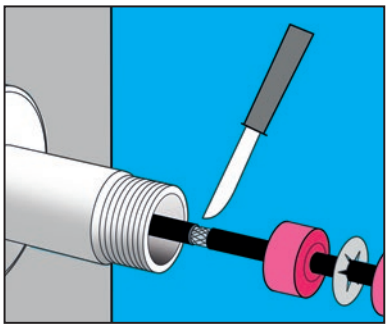


8 Push cable trough assembled gland and tighten nut.

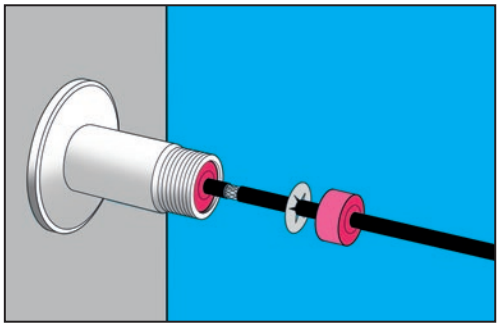


EMC Conversion parts.

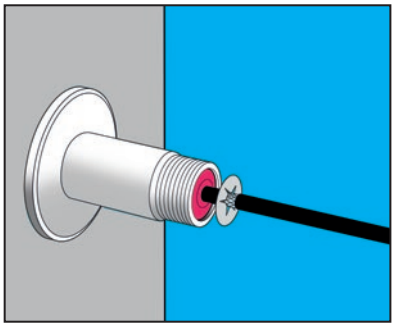
Se figure 1-3
on the left page and
then continue on
this page,
figure 2-11.



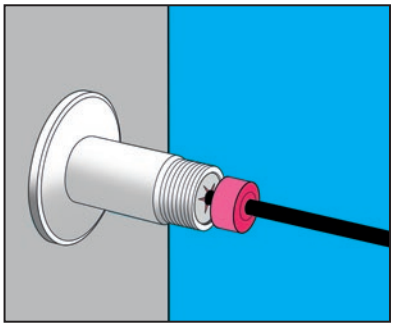
4 Pull cable though gland and carefully trim 5 mm of outer sheath.



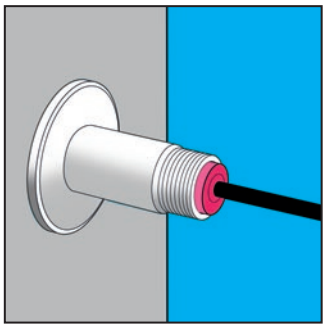
5 Push first piece of seal into place.



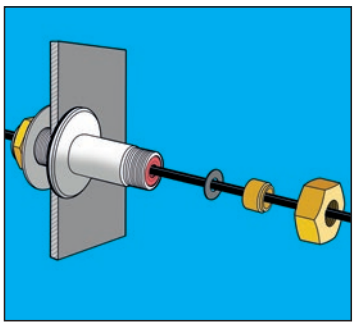
6 Slide EMC piece over cable until contacts with cable braid.



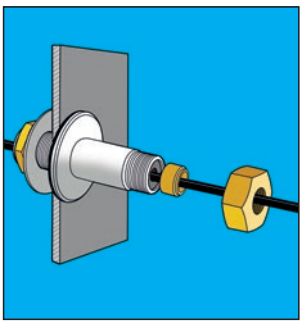
7 Slice 2nd piece of seal over cable.



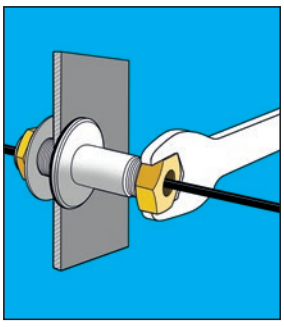
8 Carefully push complete seal and cable back into gland maintaining EMC contact.



9 Carefully push complete seal and cable back into gland maintaning EMC contact.



10 Size the second washer to the cable and insert it to the cable if required



11 Push cable trough assembled gland and tighten nut.

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