AGRO cable glands.

Progress® compression technology and
Syntec® lamellar technology.

Important installation instructions: Torque values

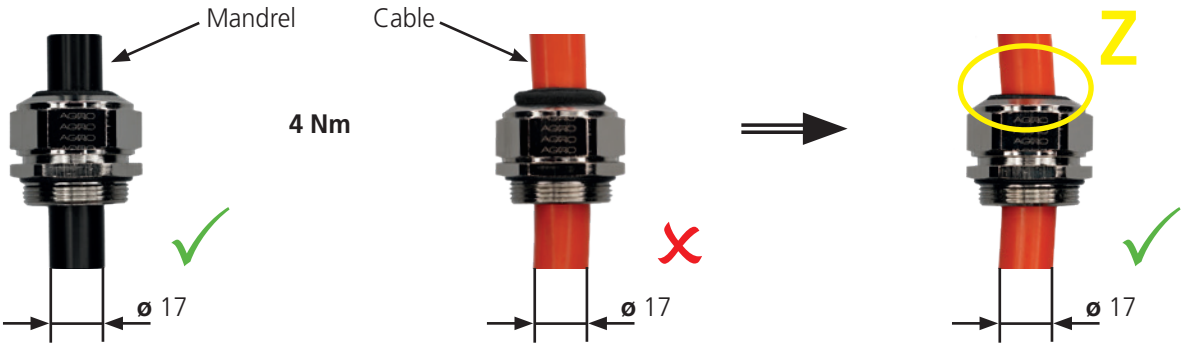
TecnelSystem S.p.A.
equipaggiamenti elettrici industriali

AGRO
... your quality-connection

This is what AGRO stands for:
For more than 65 years already, AGRO has been developing and manufacturing high-quality cable laying and cable entry products and systems for plant and equipment construction, for machine fabrication, and for professional electrical installation work in buildings of all kinds.

Determination of exact torque:
Various differences arise in theory and practice when determining the exact torque for cable glands. However, these can be easily explained:
According to IEC / EN 62444, so-called **test mandrels** are used for testing and determining torques. The standard specifies that these test mandrels must have a hardness of 65 Shore D. The required surface roughness is also specified. The torques determined according to the standard can be found on pages 4 to 8.
Evaluations with cables inevitably give different results, since cables according to different standards and with different surfaces are used in practice. Therefore, the correct torque can only be determined using the same cable and cable gland that will be actually used. AGRO will be happy to carry out such testing for you in the company's certified in-house laboratory. Let us show you what we can do.
Below you will find the illustrations as a visual aid.

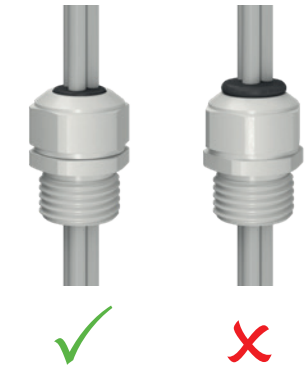
Progress® compression technology and Syntec® lamellar technology



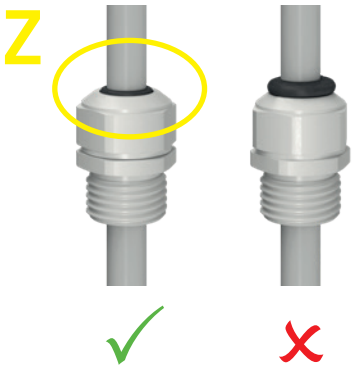
The above pictures clearly show that the torque determined according to the standard cannot simply be applied to any cable.

The following overview applies for **all materials.**

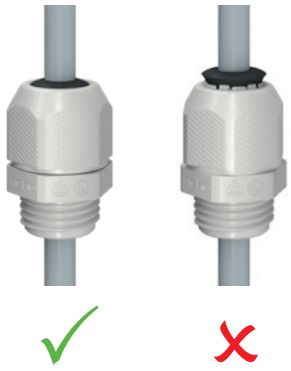
Case I
Progress® Multi



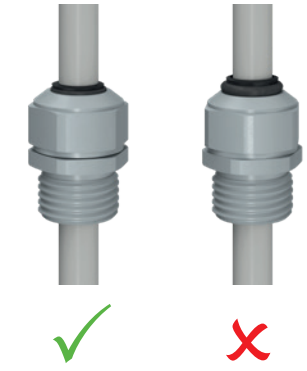
Case II
Progress® Standard



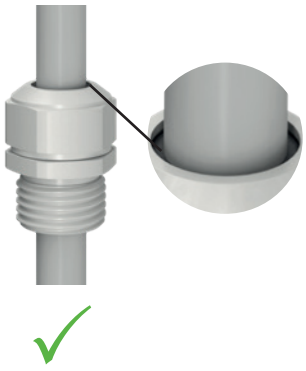
Case III
Syntec®



Case IV
Progress® two-piece sealing insert



Case V
Progress®



In the case of cables with large diameters, it is possible that no overlap of the sealing insert is visible. But the installation is still correct.

Trapezoid-shaped articulated lamellas

The exceptional ensures excellent strain relief. lamellar technology.

When the cable gland is tightened, the trapezoid-shaped come smoothly together and squeeze the cable into a hexagon-like shape so that it cannot rotate.

Compression nut

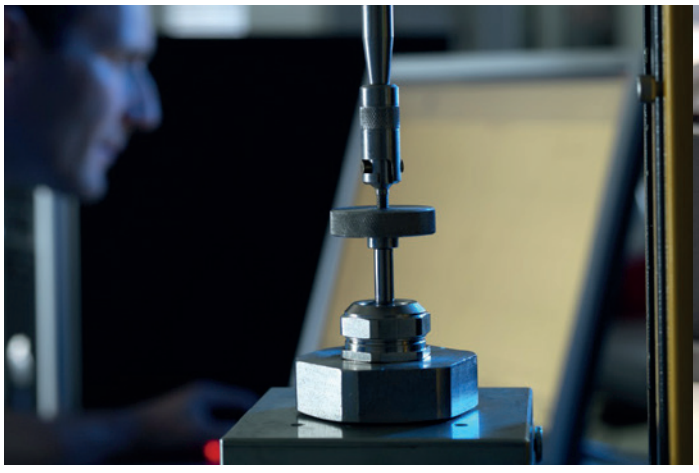
Sealing insert

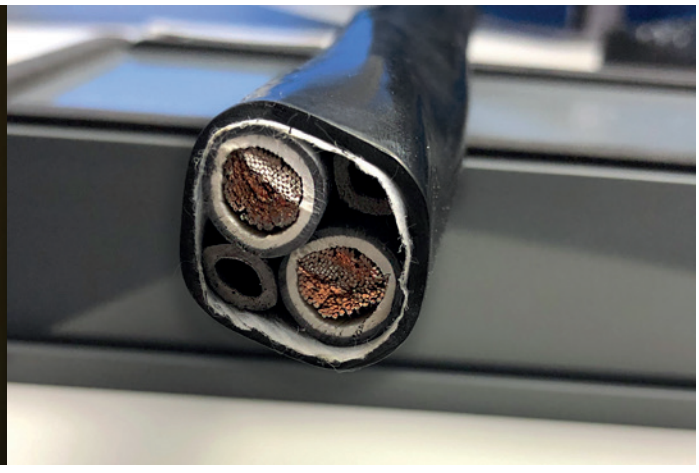
Entry threads

O-Ring / Seal

Important note
In general: The torques depend on many different factors and influences. The examples shown are therefore given **as a visual aid only**.

AGRO's certified laboratory





In order to enable customers to compare products, a cable-like test mandrel was defined by IEC / EN 62444 and required to have certain characteristics. The hardness of the test mandrel must be 65 Shore D ± 15 and the surface roughness Ra may not exceed 7 µm. This ensures that all cable glands are tested identically.

These test mandrels can of course never cover the entire spectrum of cables. The cable structure, its filling, the nature of its outer sheath and the material pairing with the sealing insert of the cable gland are some important parameters that have a major influence on the entire connection – especially at the lower end of the clamping range in terms of cable diameter. If you want to be sure that the cable gland, when fitted to your cable, achieves protection class IP 68 or the required cable retention or strain relief, you can provide us with a piece of the cable for testing in our in-house laboratory.

Installation torques - metric

Progress® Metal			Progress® Metal for flat cables			Progress® Metal Multi Progress® GFK Multi			Progress® EMC Series 85		
Thread	Range (mm)	Md [1] (Nm)	Thread	Range (mm)	Md [1] (Nm)	Thread	Range (mm)	Md [1] (Nm)	Thread	Range (mm)	Md [1] (Nm)
M6x1	2.0 - 2.5	2									
M6x1	2.5 - 3.0	1									
M6x1	2.0 - 3.5	1									
M8x1.25	2.5 - 3.5	2									
M8x1.25	3.5 - 5.0	1									
M10x1.5	3.0 - 4.0	4									
M10x1.5	4.0 - 6.0	2									
M12x1.5	3.5 - 5.0	4									
M12x1.5	5.0 - 6.5	5									
M12x1.5	6.5 - 8.0	3									
M16x1.5	3.5 - 4.5	7	M16x1.5	7.3x2.5 - 9.0x4.2	6	M16x1.5	2 x 2.0 - 3.0	6	M16x1.5	4.5 - 6.0	6
M16x1.5	4.5 - 6.0	6				M16x1.5	2 x 2.5 - 4.0	5	M16x1.5	6.0 - 10.5	6
M16x1.5	6.0 - 8.0	5				M16x1.5	2 x 3.5 - 5.0	4	M16x1.5	8.0 - 15.0	5
M16x1.5	8.0 - 10.5	3									
M16x1.5	6.0 - 10.5	4									
M20x1.5	6.0 - 8.0	10	M20x1.5	10.5x2.5 - 13.0x5.0	10	M20x1.5	2 x 3.5 - 5.0	10	M20x1.5	8.0 - 15.0	5
M20x1.5	8.0 - 11.0	9	M20x1.5	12.5x2.5 15.0x5.0	9	M20x1.5	2 x 4.5 - 6.0	9	M20x1.5	12.5 - 20.5	7
M20x1.5	11.0 - 15.0	5				M20x1.5	2 x 5.5 - 7.5	5			
M20x1.5	8.0 - 15.0	5				M20x1.5	3 x 3.5 - 5.0	5			
						M20x1.5	3 x 4.5 - 6.0	5			
M25x1.5	9.5 - 12.5	10	M25x1.5	16.0x4.0 - 19.0x7.0	10	M20x1.5	3 x 5.2 - 6.5	5	M25x1.5	12.5 - 20.5	7
M25x1.5	12.5 - 16.0	10				M20x1.5	4 x 3.5 - 5.0	5	M25x1.5	17.0 - 25.5	6
M25x1.5	16.0 - 20.5	4				M20x1.5	4 x 4.5 - 6.0	5			
M25x1.5	12.5 - 20.5	7									
						M25x1.5	2 x 5.0 - 7.0	8			
M32x1.5	14.0 - 17.0	5	M32x1.5	19x3.0 - 22.0x6.0	4	M25x1.5	2 x 6.7 - 9.0	10	M32x1.5	17.0 - 25.5	6
M32x1.5	17.0 - 21.0	4	M32x1.5	19.0x5.0 22.0x8.0	4	M25x1.5	2 x 7.7 - 10.0	5	M32x1.5	24.0 - 33.0	12
M32x1.5	21.0 - 25.5	4				M25x1.5	3 x 5.5 - 7.0	4			
M32x1.5	17.0 - 25.5	6				M25x1.5	3 x 6.8 - 9.0	4			
						M25x1.5	4 x 5.5 - 7.0	4			
M40x1.5	20.0 - 24.0	10	M40x1.5	25.0x3.0 - 28.0x6.0	9	M25x1.5	6 x 4.8 - 6.0	4	M40x1.5	24.0 - 33.0	12
M40x1.5	24.0 - 28.5	8	M40x1.5	30.0x3.5 33.0x6.5	9						
M40x1.5	28.5 - 33.0	9	M40x1.5	23.0x4.0 26.0x7.0	8	M32x1.5	2 x 9.0 - 11.5	5			
M40x1.5	24.0 - 33.0	12	M40x1.5	23.5x6.0 26.5x9.0	9	M32x1.5	2 x 7.0 - 9.0	4			
			M40x1.5	29.0x6.0 32.0x9.0	9	M32x1.5	3 x 8.5 - 10.5	4			
M50x1.5	29.0 - 33.0	11	M40x1.5	27.0x7.0 30.0x10.0	9	M32x1.5	4 x 7.0 - 9.0	4	M50x1.5	33.0 - 42.0	22
M50x1.5	33.0 - 37.0	14				M32x1.5	6 x 5.8 - 7.0	4			
M50x1.5	37.0 - 42.0	14	M50x1.5	36.5x2.5 40.0x6.0	14						
M50x1.5	33.0 - 42.0	22	M50x1.5	34.0x4.0 - 37.0x7.0	14						
			M50x1.5	31.0x8.5 34.0x11.5	11						
M63x1.5	35.0 - 40.0	40	M50x1.5	36.5x10.0 40.0x13.5	14				M63x1.5	33.0 - 42.0	22
M63x1.5	40.0 - 46.0	39	M50x1.5	38.5x10.0 42.0x14.0	14				M63x1.5	40.0 - 52.0	38
M63x1.5	46.0 - 52.0	33									
M63x1.5	40.0 - 52.0	38	M63x1.5	42.0x10.0 - 46.0x14.0	32						
			M63x1.5	42.5x2.0 46.5x6.0	34						
M75x1.5	45.0 - 50.0	53									
M75x1.5	50.0 - 56.0	42									
M75x1.5	56.0 - 63.0	43									
M75x1.5	50.0 - 63.0	50									

1) The given torques (Md) were determined using test mandrels according to IEC EN 62444. The values relate to the pressure nut, the intermediate fitting (lower part of the cable gland) and the lock nut. If, at the time of installation of the intermediate fitting, it is unclear which sealing range will be facilitated, the highest value for the intermediate fitting should always be selected. In general, the following applies: tighten the parts until the torque specified in the table is reached OR the sealing insert bulges and protrudes slightly from the compression nut (see pictures).

2) Applies also to Syntec® with antikink nozzle.

Installation torques - metric

EMC easyCONNECT			EMC powerCONNECT			Progress® GFK			Progress® multiLAYER		
Thread	Range (mm)	Md 1) (Nm)	Thread	Range (mm)	Md 1) (Nm)	Thread	Range (mm)	Md 1) (Nm)	Thread	Range (mm)	Md 1) (Nm)
									Metal		
									M20x1.5	4.0 - 5.5	**7/3**
						M8x1.25	2.5 - 3.5	**1**	M20x1.5	5.5 7.5	**7/4**
						M8x1.25	3.0 - 5.0	**1**	M20x1.5	7.5 11.0	**7/5**
									M20x1.5	11.0 15.0	**7/5**
						M10x1.5	3.0 - 4.0	**1**			
						M10x1.5	4.0 - 6.0	**1**	M25x1.5	6.0 - 8.5	**10/7.5**
									M25x1.5	8.5 11.5	**10/7.5**
M12x1.5	3.5 - 5.0	**3**				M12x1.5	3.5 - 5.0	**2**	M25x1.5	11.5 16.0	**10/6.0**
M12x1.5	5.0 - 6.5	**3**				M12x1.5	5.0 - 6.5	**3**	M25x1.5	16.0 20.5	**10/4.0**
						M12x1.5	6.5 - 8.0	**2**			
									M32x1.5	10.0 - 13.0	**12/8.5**
M16x1.5	6.0 - 10.5	**3**	M16x1.5	6.0 - 10.5	**3**	M16x1.5	4.5 - 6.0	**5**	M32x1.5	13.0 16.5	**12/7.5**
						M16x1.5	6.0 - 8.0	**4**	M32x1.5	16.5 21.0	**12/5.5**
						M16x1.5	8.0 - 10.5	**2**	M32x1.5	21.0 25.5	**12/4.0**
						M16x1.5	6.0 - 10.5	**2**			
									Synthetic GFK		
M20x1.5	8.0 - 15.0	**4**	M20x1.5	8.0 - 15.0	**5**	M20x1.5	6.0 - 8.0	**6**	M20x1.5	4.0 - 5.5	**7/3**
						M20x1.5	8.0 - 11.0	**5**	M20x1.5	5.5 7.5	**7/2.7**
						M20x1.5	11.0 - 15.0	**2**	M20x1.5	7.5 11.0	**7/2**
						M20x1.5	8.0 - 15.0	**3**	M20x1.5	11.0 15.0	**7/2**
M25x1.5	12.5 - 20.5	**6**	M25x1.5	12.5 - 20.5	**7**	M25x1.5	9.5 - 12.5	**6**	M25x1.5	6.0 - 8.5	**10/7.5**
						M25x1.5	12.5 - 16.0	**4**	M25x1.5	8.5 11.5	**10/6.5**
						M25x1.5	16.0 - 20.5	**3**	M25x1.5	11.5 16.0	**10/5.0**
						M25x1.5	12.5 - 20.5	**4**	M25x1.5	16.0 20.5	**10/3.0**
M32x1.5	17.0 - 25.5	**7**	M32x1.5	17.0 - 25.5	**7**	M32x1.5	14.0 - 17.0	**5**	M32x1.5	10.0 - 13.0	**12/8.0**
						M32x1.5	17.0 - 21.0	**4**	M32x1.5	13.0 16.5	**12/7.0**
						M32x1.5	21.0 - 25.5	**3**	M32x1.5	16.5 21.0	**12/5.5**
						M32x1.5	17.0 - 25.5	**4**	M32x1.5	21.0 25.5	**12/3.0**
M40x1.5	24.0 - 33.0	**12**	M40x1.5	24.0 - 33.0	**10**	M40x1.5	20.0 - 24.0	**10**			
						M40x1.5	24.0 - 28.5	**7**			
						M40x1.5	28.5 - 33.0	**10**			
						M40x1.5	24.0 - 33.0	**9**			
						M50x1.5	29.0 - 33.0	**11**			
						M50x1.5	33.0 - 37.0	**12**			
M50x1.5	33.0 - 42.0	**22**	M50x1.5	33.0 - 42.0	**15**	M50x1.5	37.0 - 42.0	**16**			
						M50x1.5	33.0 - 42.0	**15**			
						M63x1.5	35.0 - 40.0	**28**			
						M63x1.5	40.0 - 46.0	**19**			
						M63x1.5	46.0 - 52.0	**41**			
M63x1.5	40.0 - 52.0	**38**	M63x1.5	40.0 - 52.0	**32**	M63x1.5	40.0 - 52.0	**26**			
			M75x1.5	50.0 63.0	**34**						

1) The given torques (Md) were determined using test mandrels according to IEC EN 62444.The values relate to the pressure nut, the intermediate fitting (lower part of the cable gland) and the lock nut. If, at the time of installation of the intermediate fitting, it is unclear which sealing range will be facilitated, the highest value for the intermediate fitting should always be selected. In general, the following applies: tighten the parts until the torque specified in the table is reached OR the sealing insert bulges and protrudes slightly from the compression nut (see pictures).

2) Applies also to Syntec® with antikink nozzle.

Installation torques - metric

Progress® Metal with EPDM antikink nozzle			Syntec® Metal			Syntec® Synthetic			Pressure balance element	
Thread	Range (mm)	Md 1) (Nm)	Thread	Range (mm)	Md 1) (Nm)	Thread	Range (mm)	Md 1) (Nm)	Thread	Md 1) (Nm)
M8x1.25	3.8 - 4.8	2								
M10x1.5	4.0 - 6.0	3								
									M	
M12x1.5	4.0 - 6.0	5	M12x1.5	1.5 - 5.0	2.2	M12x1.5 2)	2.5 - 6.5	2	M12x1.5	3
			M12x1.5	3.0 - 7.0	2.2					
M16x1.5	6.0 - 8.8	9	M16x1.5	2.0 - 6.0	3.5	M16x1.5	2.0 - 6.0	3.5	M16x1.5	5
			M16x1.5	4.5 - 10.0	4	M16x1.5	4.5 - 10.0	3.5		
						M16x1.5 2)	4.0 8.0	2		
M20x1.5	9.0 - 11.0	11	M20x1.5	3.5 - 8.0	5.5	M20x1.5	3.5 - 8.0	5.5	M20x1.5	7
M20x1.5	10.5 - 13.0	10	M20x1.5	7.0 - 13.0	5.5	M20x1.5	7.0 - 13.0	5.5		
						M20x1.5 2)	3.0 7.0	3		
						M20x1.5 2)	5.5 12.0	4		
									Pg	
M25x1.5	13.0 - 16.5	31	M25x1.5	5.0 - 11.0	9	M25x1.5	5.0 - 11.0	8/6	7	3
			M25x1.5	10.0 - 17.0	9	M25x1.5	10.0 - 17.0	8/6		
			M32x1.5	7.0 - 15.0	25	M32x1.5	17.0 - 25.0	7	9	5
			M32x1.5	13.0 - 21.0	25				11	5
			M40x1.5	15.0 - 23.0	40	M40x1.5	22.0 - 33.0	10	13	7
			M40x1.5	19.0 - 28.0	40					
			M50x1.5	20.0 - 29.0	40	M50x1.5	28.0 - 38.0	30		
			M50x1.5	25.0 - 35.0	40					
			M63x1.5	28.0 - 39.0	60	M63x1.5	32.0 - 44.0	25		
			M63x1.5	35.0 - 48.0	40					
			M63x1.5	44.0 - 45.0	50					

1) The given torques (Md) were determined using test mandrels according to IEC EN 62444. The values relate to the pressure nut, the intermediate fitting (lower part of the cable gland) and the lock nut. If, at the time of installation of the intermediate fitting, it is unclear which sealing range will be facilitated, the highest value for the intermediate fitting should always be selected. In general, the following applies: tighten the parts until the torque specified in the table is reached OR the sealing insert bulges and protrudes slightly from the compression nut (see pictures).

2) Applies also to Syntec® with antikink nozzle.

Installation torques - Pg

Progress® Metal			Progress® Metal for flat cables			Progress® Metal Multi Progress® GFK Multi			Progress® EMC Series 85		
Thread	Range (mm)	Md 1) (Nm)	Thread	Range (mm)	Md 1) (Nm)	Thread	Range (mm)	Md 1) (Nm)	Thread	Range (mm)	Md 1) (Nm)
Pg7	3.5 - 5.0	4									
Pg7	5.0 - 6.5	5									
Pg7	6.5 - 8.0	3									
Pg9	3.5 - 4.5	7	Pg9	7.3x2.5 - 9.0x4.2	6	Pg9	2 x 2.0 - 3.0	6			
Pg9	4.5 - 6.0	6				Pg9	2 x 2.5 - 4.0	5			
Pg9	6.0 - 8.0	5				Pg9	2 x 3.5 - 5.0	4			
Pg9	8.0 - 10.5	3									
Pg9	6.0 - 10.5	4									
Pg11	4.0 - 5.5	8	Pg13/Pg16	10.5x2.5 - 13.0x5.0	10	Pg11	2 x 3.5 - 5.0	8	Pg11	6.0 - 10.5	6
Pg11	5.5 - 8.5	7	Pg13/Pg16	12.5x2.5 15.0x5.0	9	Pg11	2 x 4.5 - 6.0	7	Pg11	8.0 - 15.0	5
Pg11	8.5 - 12.0	5				Pg11	2 x 5.5 - 7.0	7			
Pg11	5.5 - 12.0	5				Pg11	3 x 3.5 - 5.0	5			
Pg13	6.0 - 8.0	10	Pg21	16.0x4.0 - 19.0x7.0	10	Pg13/Pg16	2 x 3.5 - 5.0	10			
Pg13	8.0 - 11.0	9				Pg13/Pg16	2 x 4.5 - 6.0	9			
Pg13	11.0 - 15.0	5				Pg13/Pg16	2 x 5.5 - 7.5	5			
Pg13	8.0 - 15.0	5				Pg16	2 x 6.7 - 9.0	5			
						Pg13/Pg16	3 x 3.5 - 5.0	5			
Pg16	6.0 - 8.0	10	Pg21	19x3.0 - 22.0x6.0	4	Pg13/Pg16	3 x 4.5 - 6.0	5	Pg16	8.0 - 15.0	5
Pg16	8.0 - 11.0	9	Pg21	19.0x5.0 22.0x8.0	4	Pg13	3 x 5.2 - 6.5	5	Pg16	12.5 - 20.5	7
Pg16	11.0 - 15.0	5				Pg16	3 x 5.0 - 7.0	5			
Pg16	8.0 - 15.0	5				Pg13/Pg16	4 x 3.5 - 5.0	5			
						Pg13/Pg16	4 x 4.5 - 6.0	5			
Pg21	9.5 - 12.5	10	Pg29	25.0x3.0 - 28.0x6.0	9	Pg13/Pg16	4 x 5.5 - 7.0	5	Pg21	12.5 - 20.5	7
Pg21	12.5 - 16.0	10	Pg29	30.0x3.5 33.0x6.5	9				Pg21	17.0 - 25.5	6
Pg21	16.0 - 20.5	4	Pg29	23.0x4.0 26.0x7.0	8	Pg21	2 x 5.0 - 7.0	8			
Pg21	12.5 - 20.5	7	Pg29	23.5x6.0 26.5x9.0	9	Pg21	2 x 6.7 - 9.0	10			
			Pg29	29.0x6.0 32.0x9.0	9	Pg21	2 x 7.7 - 10.0	5			
Pg29	16.0 - 19.0	10	Pg29	27.0x7.0 30.0x10.0	9	Pg21	3 x 5.5 - 7.0	4	Pg29	17.0 - 25.5	7
Pg29	19.0 - 23.0	8				Pg21	3 x 6.8 - 9.0	4	Pg29	24.0 - 33.0	12
Pg29	23.0 - 27.5	8	Pg42	36.5x2.5 40.0x6.0	14	Pg21	3 x 8.5 - 10.0	4			
Pg29	19.0 - 27.5	8	Pg42	34.0x4.0 - 37.0x7.0	14	Pg21	4 x 5.5 - 7.0	4			
			Pg42	31.0x8.5 34.0x11.5	11	Pg21	4 x 7.0 - 9.0	4			
Pg36	21.5 - 26.0	12	Pg42	36.5x10.0 40.0x13.5	14	Pg21	6 x 4.8 - 6.0	4			
Pg36	26.0 - 30.5	12	Pg42	38.5x10.0 42.0x14.0	14						
Pg36	30.5 - 35.0	12				Pg29	3 x 7.5 - 9.0	10			
Pg36	26.0 - 35.0	15	Pg48	42.0x10.0 - 46.0x14.0	32						
			Pg48	42.5x2.0 46.5x6.0	34						
Pg42	29.0 - 33.0	11									
Pg42	33.0 - 37.0	14									
Pg42	37.0 - 42.0	14									
Pg42	33.0 - 42.0	22									
Pg48	32.0 - 37.0	40									
Pg48	37.0 - 43.0	40									
Pg48	43.0 - 49.0	35									
Pg48	37.0 - 49.0	40									

1) The given torques (Md) were determined on the basis of IEC EN 62444 using test mandrels. The values relate to the pressure nut, the intermediate fitting (lower part of the cable gland) and the lock nut. If, at the time of installation of the intermediate fitting, it is unclear which sealing range will be facilitated, the highest value for the intermediate fitting should always be selected. In general, the following applies: tighten the parts until the torque specified in the table is reached OR the sealing insert bulges and protrudes slightly from the compression nut (see pictures).

2) Applies also to Syntec® with antikink nozzle.

Installation torques - Pg

Progress® GFK			Progress® Metal with EPDM antikink nozzle			Syntec® Metal			Syntec® Synthetic		
Thread	Range (mm)	Md 1) (Nm)	Thread	Range (mm)	Md 1) (Nm)	Thread	Range (mm)	Md 1) (Nm)	Thread	Range (mm)	Md 1) (Nm)
Pg7	3.5 - 5.0	2	Pg7	4.0 - 6.0	5	Pg7	1.5 - 5.0	2.2	Pg7 2)	2.5 - 6.5	2
Pg7	5.0 - 6.5	3				Pg7	3.0 - 7.0	2.2			
Pg7	6.5 - 8.0	2									
			Pg9	6.0 - 8.8	9	Pg9	2.0 - 6.0	3.5	Pg9 2)	3.0 - 8.0	2.5
Pg9	4.5 - 6.0	5				Pg9	4.5 - 10.0	4			
Pg9	6.0 - 8.0	4									
Pg9	8.0 - 10.5	2									
Pg9	6.0 - 10.5	2									
Pg11	4.0 - 5.5	5	Pg11	6.0 - 8.8	9	Pg11	3.5 8.0	5.5	Pg11 2)	2.0 - 7.0	5
Pg11	5.5 - 8.5	4				Pg11	7.0 13.0	5.5	Pg11 2)	4.0 - 10.0	6
Pg11	8.5 - 12.0	2									
Pg11	5.5 - 12.0	2									
Pg13	6.0 - 8.0	6	Pg13	9.0 - 11.0	11	Pg13	3.5 - 8.0	5.5	Pg13 2)	3.0 - 7.0	3
Pg13	8.0 - 11.0	5	Pg13	10.5 - 13.0	10	Pg13	7.0 - 13.0	5.5	Pg13 2)	5.5 - 12.0	4
Pg13	11.0 - 15.0	2									
Pg13	8.0 - 15.0	3									
Pg16	6.0 - 8.0	6	Pg16	9.0 - 11.0	11	Pg16	5.0 11.0	9	Pg16 2)	5.0 - 11.0	8/6
Pg16	8.0 - 11.0	5	Pg16	10.5 - 13.0	10	Pg16	7.0 13.0	9	Pg16 2)	8.5 - 14.0	8
Pg16	11.0 - 15.0	2									
Pg16	8.0 - 15.0	3									
Pg21	9.5 - 12.5	6	Pg21	13.0 - 16.5	31	Pg21	7.0 - 15.0	25	Pg21	6.5 - 14.0	6.5
Pg21	12.5 - 16.0	4				Pg21	10.0 - 17.0	25	Pg21	11.0 - 18.0	10
Pg21	16.0 - 20.5	3									
Pg21	12.5 - 20.5	4									
Pg29	16.0 - 19.0	8				Pg29	15.0 - 23.0	40	Pg29	17.0 - 25.0	7
Pg29	19.0 - 23.0	8				Pg29	19.0 28.0	40			
Pg29	23.0 - 27.5	10									
Pg29	19.0 - 27.5	10									
Pg36	21.5 - 26.0	10				Pg36	20.0 - 29.0	40	Pg36	22.0 - 33.0	10
Pg36	26.0 - 30.5	10				Pg36	25.0 35.0	40			
Pg36	30.5 - 35.0	10									
Pg36	26.0 - 35.0	12									
Pg42	29.0 - 33.0	11				Pg42	20.0 - 29.0	40	Pg42	28.0 - 38.0	23
Pg42	33.0 - 37.0	12				Pg42	25.0 35.0	40			
Pg42	37.0 - 42.0	16									
Pg42	33.0 - 42.0	15									
Pg48	32.0 - 37.0	28				Pg48	28.0 - 39.0	60	Pg48	32.0 - 44.0	25
Pg48	37.0 - 43.0	25				Pg48	35.0 48.0	40			
Pg48	43.0 - 49.0	40									
Pg48	37.0 - 49.0	40									

1) The given torques (Md) were determined on the basis of IEC EN 62444 using test mandrels.The values relate to the pressure nut, the intermediate fitting (lower part of the cable gland) and the lock nut. If, at the time of installation of the intermediate fitting, it is unclear which sealing range will be facilitated, the highest value for the intermediate fitting should always be selected. In general, the following applies: tighten the parts until the torque specified in the table is reached OR the sealing insert bulges and protrudes slightly from the compression nut (see pictures).

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