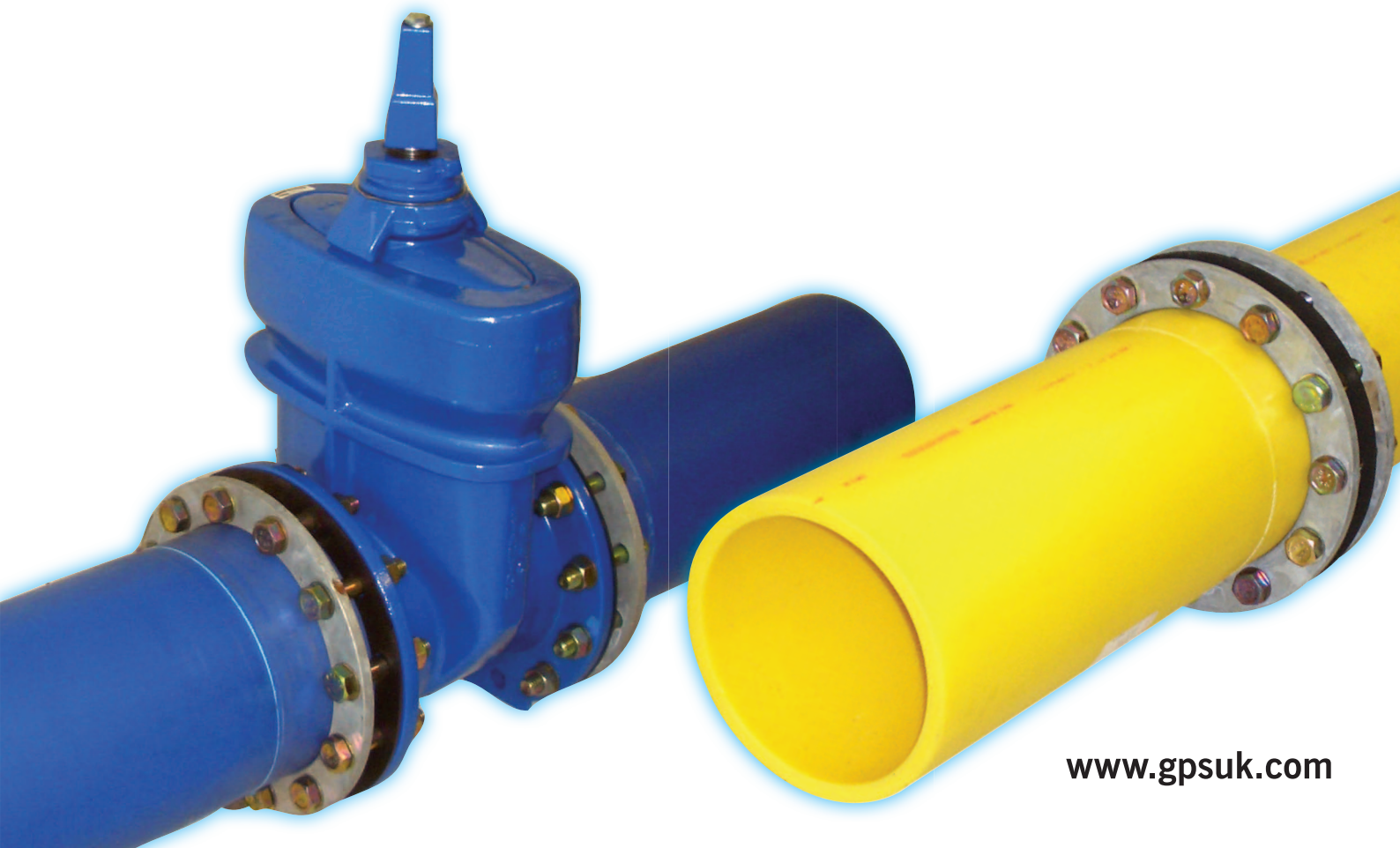




SLIMFLANGE **SIZE-FOR-SIZE CONNECTIONS**

Full end load performance without compromise



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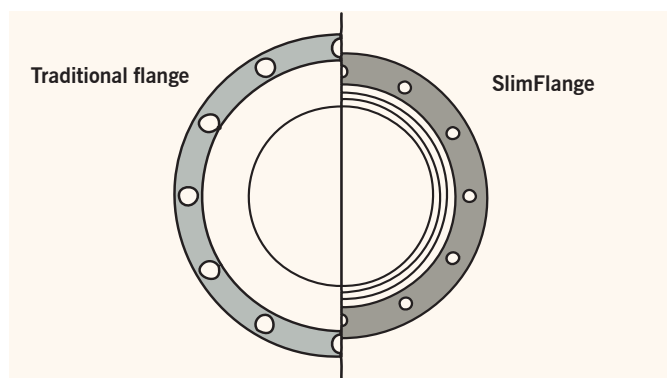
Size-for-size flange connections for faster and cost-effective installation

SlimFlange is a unique steel reinforced flange adaptor that allows bore-size-for-size jointing of a PE pipe to a metal flange.

Compact, lightweight yet strong, it eliminates the usual need to upsize valves or other metal fittings, benefitting installers with faster, safer and more cost effective installations.

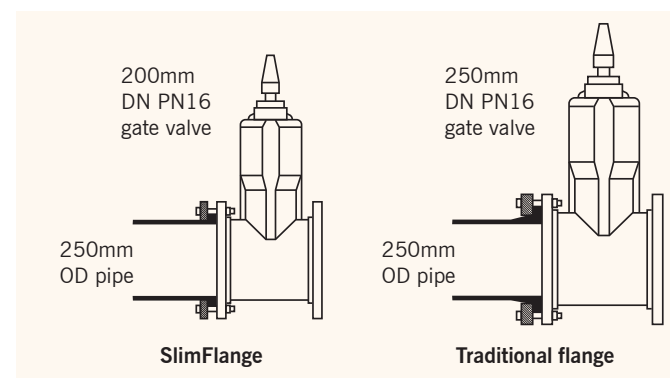
Design

SlimFlange was engineered specifically to cut gas and water installation costs with no safety compromise. The unique fitting design incorporates a steel reinforcement hoop, buried in the SlimFlange face. This allows the PE stub shoulder height and backing ring size to be reduced dramatically, with increased joint strength and improved sealing performance, including installations where SlimFlanges are bolted back to back.



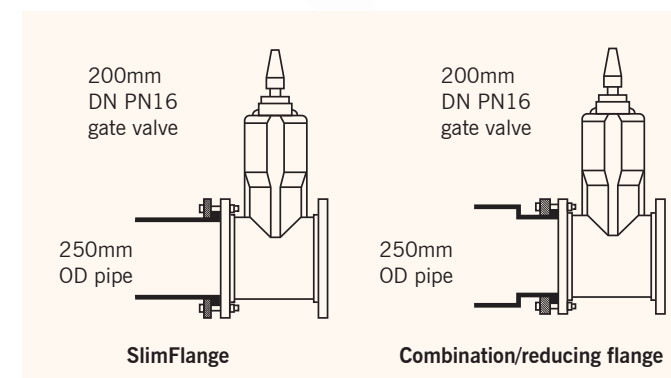
Unique Solution

The SlimFlange has the same size bore as a traditional PE Flange, but has a smaller backing ring bolt circle diameter.



No Upsizing

A 250mm SlimFlange connects 250mm OD (outside diameter) PE pipe directly to a 200mm DN PN16 valve. A traditional 250mm PE flange requires a 250mm ID (internal diameter) PN16 valve for bolting to match.



No Safety Compromise

SlimFlange does not lead to loss of strength, unlike PE 'combination' flanges. Size-for-size capability is not achieved by temporary PE bore reduction, which weakens the fitting and increases the potential for blockage.

Key Product Information

- Size range: from 250mm to 630mm (PE outside diameter) as standard.
Non-standard SDRs and drillings can usually be supplied.
- Pressure ratings: up to 4bar for gas and up to 16bar for water applications
- Materials: main body and pups – Excel (PE100); backing ring - galvanised mild steel plate to BS 4360/43A (or other steels to special order)

Approvals

SlimFlange is manufactured and tested in accordance with the following specifications:

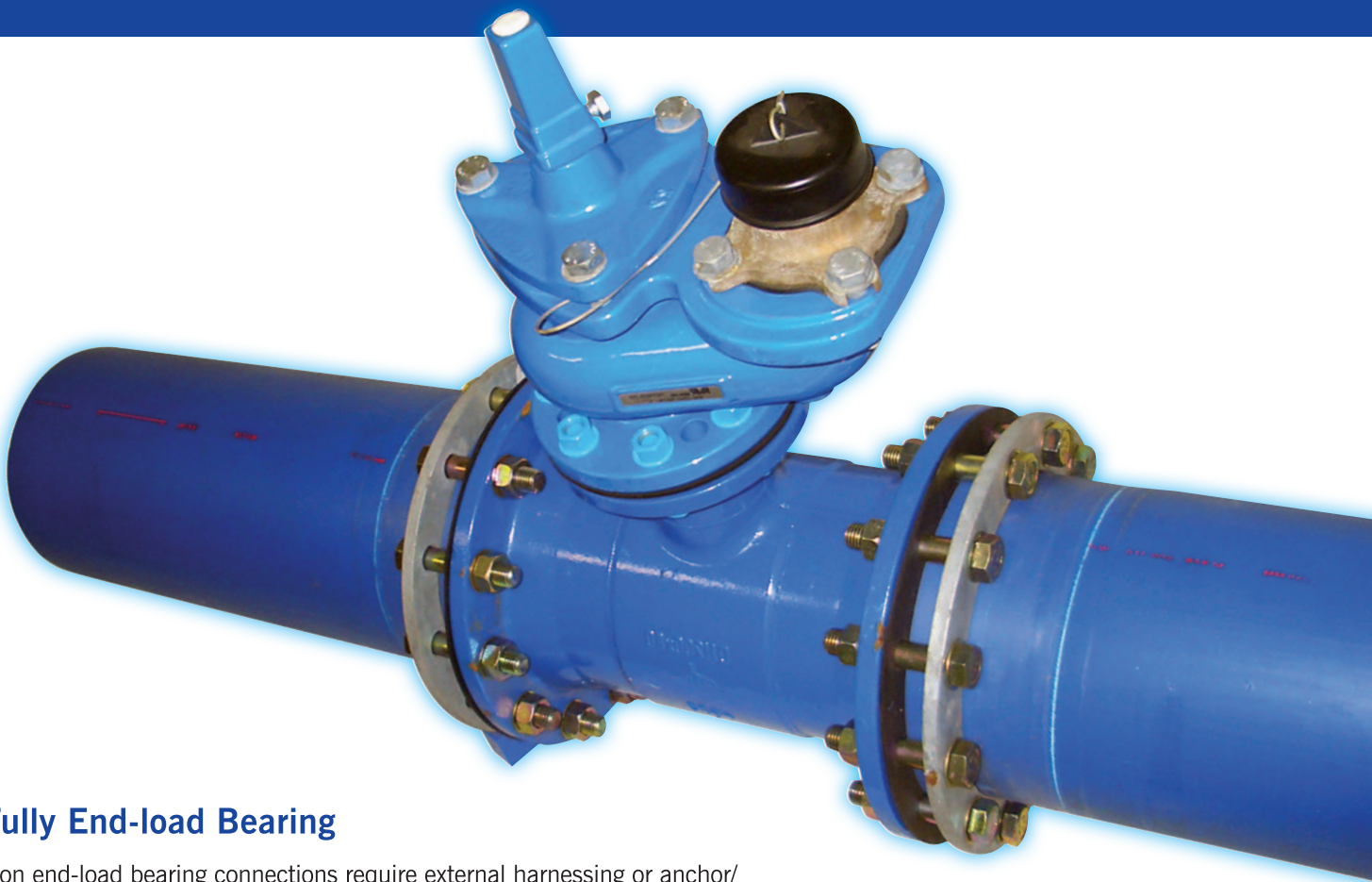
- Gas industry - GIS/PL3 Class B (for sizes up to and including 500mm x 450mm) and GIS/PL2:Part 6 (for 250mm x 200mm)
- Water industry - WIS 4-24-01 (Type 1 at SDR17 and above)

Features

- No need for upsizing metal fittings, or for PE bore reduction
- Fully end load bearing fitting (Type 1 at SDR17 and above)
- Reduced size and weight
- Fully floating, compact backing ring
- No compromise on strength and durability – stronger than the same size of conventional PE flange
- Enhanced gasket sealing performance

Benefits

- Cost saving via bore-size-for-size connection
- Easier handling and installation
- Reduced installation costs
- Smooth bore and full flow capacity maintained
- Improved long-term security against leaks
- Pipeline pigging made easier



Fully End-load Bearing

Non end-load bearing connections require external harnessing or anchor/thrust blocking. SlimFlange avoids this problem, as it is fully end-load bearing for most SDRs and under tensile loading the associated pipe will always yield before the SlimFlange.

Reduced Weight

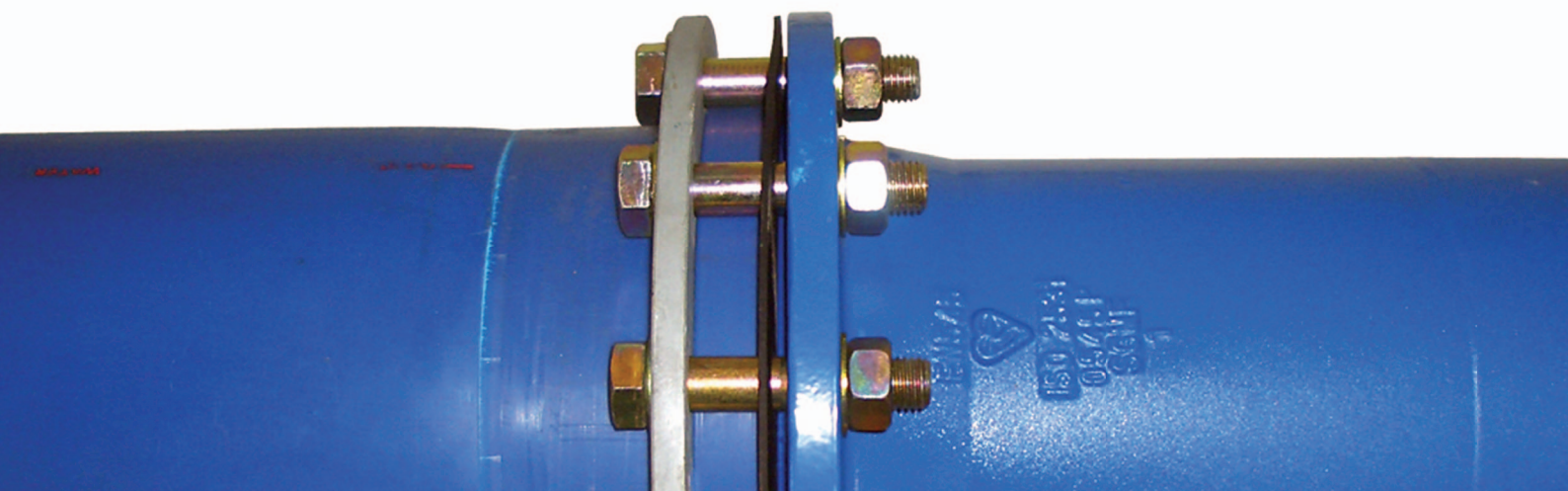
SlimFlange is almost 50% lighter than equivalent conventional PE flange adaptors, providing significant logistical and handling benefits. Significantly reduced weight also reduces the associated health & safety burden.

Ease of Installation

SlimFlange is the only size-for-size PE flange adaptor with a freely rotating backing ring, to allow precise flange alignment and easy bolting-up to valves and other fittings in the field.

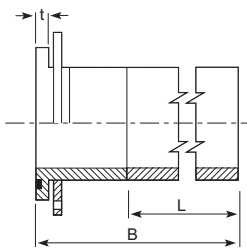
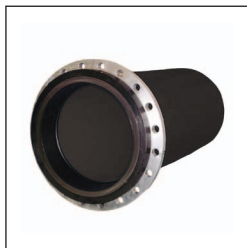
Improved Sealing Performance

The compact backing ring of SlimFlange applies loading more directly to the PE shoulder, resulting in improved long term sealing against any gas or water leakage.



Product Codes and Dimensions

SlimFlange Assemblies*



Size** (mm)	SDR11 Code Black	SDR11 Code Blue	SDR17 Code Black	SDR17 Code Blue	SDR17/17.6 Code Yellow	SDR21 Code Yellow
250 x 200	40 453 321	41 453 321	40 452 321	41 452 321	58 452 321	59 487 321
315 x 250	40 453 323	41 453 323	40 452 323	41 452 323	58 452 323	59 487 323
355 x 300	40 453 324	41 453 324	40 452 324	41 452 324	58 452 324	59 487 324
400 x 350	40 453 325	41 453 325	40 452 325	41 452 325	58 452 325	59 487 325
450 x 400	40 453 326	41 453 326	40 452 326	41 452 326	58 452 326	59 487 326
500 x 450	40 453 327	41 453 327	40 452 327	41 452 327	58 452 327	59 487 327
560 x 500	40 453 328	41 453 328	40 452 328	41 452 328	58 452 328	-
630 x 500	40 453 329	41 453 329	40 452 329	41 452 329	58 452 329	-

Size** (mm)	L (mm)	B (mm)	t SDR11 (mm)	t SDR17/17.6 (mm)	t SDR21 (mm)	Approx Total Weight SDR11 (kg)	Approx Total Weight SDR17/17.6 (kg)	Approx Total Weight SDR21 (kg)
250 x 200	500	610	31	27	27	15	11	11
315 x 250	500	610	35	30	30	26	23	23
355 x 300	500	610	40	35	35	32	25	25
400 x 350	500	610	44	38	38	44	36	36
450 x 400	1000	1110	49	42	42	81	61	61
500 x 450	1000	1110	53	45	45	99	75	75
560 x 500	1000	1110	59	50	50	124	94	-
630 x 500	1000	1270	59	50	50	195	135	-

* SlimFlange is only sold as an assembly. Bolts are not supplied as standard.

** The first size refers to the outside diameter of the PE pipe and the second - to the nominal bore of the metal pipe or fitting.

L = Available leg length, standard = 0.5m for 90mm to 400mm sizes, 1.0m for 450mm to 800mm sizes.

SlimFlange Backing Rings (not for sale individually)

Size* (mm)	SDR	A (mm)	B (mm)	C (mm)	D (mm)	PCD (mm)	No of Holes	Weight (kg)
250 x 200	17.6/17/11	340	13	252	22	295	12	4
315 x 250**	17.6/17/11	405	15	317	22	359	12	6
355 x 300	17.6/17/11	460	20	358	26	410	12	10
400 x 350	17.6/17/11	520	25	403	26	470	16	16
450 x 400	17.6/17/11	580	25	453	30	525	16	19
500 x 450	17.6/17/11	640	25	504	30	585	20	22
560 x 500	17.6/17/11	715	25	564	33	650	20	28
630 x 500	17.6/17/11	715	35	564	33	650	20	38

* The first size refers to the outside diameter of the PE pipe and the second - to the nominal bore of the metal iron pipe or fitting.

** The 315 x 250PN16 SDR17 SlimFlange may require 20mm diameter bolts rather than the standard 24mm.

Drilled to BS EN 1092-1:2007 Table 13.

Alternative Solutions

Where SlimFlange cannot be offered, GPS can supply alternative solutions, for example in the form of Special Flange Adaptors. Please contact our Technical Support or Sales Office for further information.



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