Pfeiffer
Chemie-Armaturenbau GmbH

Pigs
Series 28m

Application:

Pigs are for the conveyance of gases and fluids in 1-Pig- and 2-Pig systems:

- Nominal diameter DN 50, DN 80, DN 100, DN 150 and DN 200
- Temperature up to 200°C.

The different types of pigs, which are developed, designed, and produced by Pfeiffer, meet the special requirements and high standards laid down for modern pigging plants by the chemical industry:

- High cleaning performance, without additional rinsing process,
- Long service life,
- Resistant to chemicals even with corrosive media,
- The pigs maintain a constant and even run in bends and valves,
- Bi-directional operation mode, i.e. the pig is symmetric, therefore can be used in both directions,
- A magnet in core of the pig, means it is detectable for use in automated systems.

These demands on the pigs can only be met by a pigging design and construction, proven in use for many years already:

- Two distinctive sealing strips and a formed middle part enable it to run without any problems in bends,
- Sealing strip diameter approx. 4% larger than the pipe diameter for a much higher scrape performance,
- Several magnetic versions filled with a powder, meaning there is no danger of magnet discharge,
- Special pigs suitable for corrosive medium, are made from highly resistant materials, i.e. HDPE, PTFE

Versions:

The different types of design can be divided into 2 major groups:

- Pigs produced with solid elastomer body, with two sealing strips, and a distinctive formed middle part (fig 1 and 2). They have an oversize of up to 4% in relation to the inside diameter of the pigging pipline, and are the best choice for most applications, regarding cost-effectiveneness, cleaning performance, service life, and performance.

- Pigs made of various special materials, and in special designs, e.g.
  - several parts, screwed together,
  - with changeable lips,
  - materials of high resistance.

Fig. 1 - Pig TWIN 1

Fig. 2 - Pig TWIN 2

Fig. 3 - Pig TWIN 3

Fig. 4 - Pig TWIN 5

Pig TWIN 1

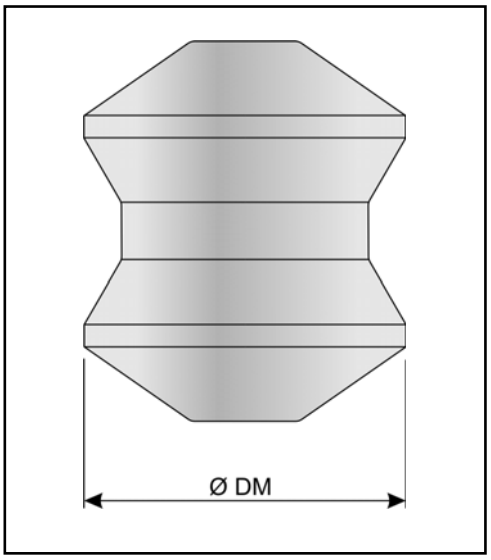

Fig. 5 - Design TWIN 1

- Solid elastomer-pig.
- Cold cast.

The pig has the following features :

- High running performance.
- Optionally with powder filling

DN	Pig piping-diameter (DM)	Tension [%]	Material		Magnet		
			Material	Hardness [Shore A]	without magnet	rod-magnet	Powder-filling
50	54.5	appr. 4	VMQ	appr. 50	yes	yes	yes
			PU		yes	yes	no
80	82.5	appr. 4	VMQ	appr. 50	yes	yes	yes
			PU		yes	yes	no
100	107.1	appr. 4	VMQ	appr. 50	yes	yes	yes
			PU		yes	yes	no
150	159.3	appr. 4	VMQ	appr. 50	yes	yes	yes
			PU		yes	yes	no
200	206.5	appr. 4	VMQ	appr. 50	yes	yes	yes
			PU		yes	yes	no

Table 1 - Design TWIN 1

Pig TWIN 2

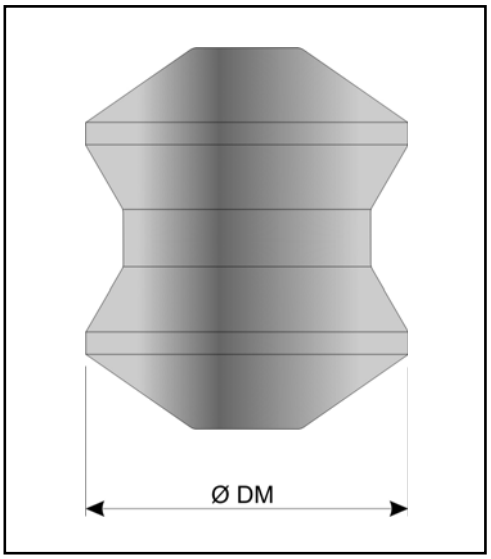

Fig. 6 - Design TWIN 2

- Solid elastomer pig.
- Vulcanised.

The pig has the following features:

- High scraping performance.
- Optionally with powder filling.
- Universal types

DN	Pig piping-diameter (DM)	Tension [%]	Material		Magnet		
			Material	Hardness [Shore A]	with magnet	rod-magnet	Powder-filling
50	54.5	appr. 4	VMQ	appr. 50	yes	yes	yes
			EPDM	appr. 50	yes	yes	yes
			FKM*	appr. 70	yes	yes	no
			other		yes	yes	yes
80	82.5	appr. 4	VMQ	appr. 50	yes	yes	yes
			PU	appr. 50	yes	yes	yes
			FKM*	appr. 70	yes	yes	no
			other		yes	yes	yes
100	107.1	appr. 4	VMQ	appr. 50	yes	yes	yes
			PU	appr. 50	yes	yes	yes
			FKM*	appr. 70	yes	yes	no
			other		yes	yes	yes
150	159.3	appr. 4	VMQ	appr. 50	yes	yes	yes
			PU	appr. 50	yes	yes	yes
			FKM*	appr. 70	yes	yes	no
			other		yes	yes	yes

Table 2 - Design TWIN 2

* Special precautions are necessary on using FKM due to its hardnessl grade.

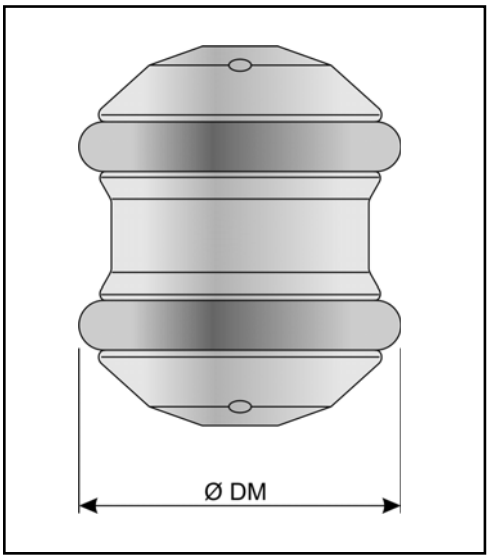

Fig. 7 - Design TWIN 3

Pig TWIN 3

- Lip Pigs.
- High level of resistance.

The pig has the following features :

- This pig type consists of a screwed pig body, which is manufactured preferebly in HDPE, due to its weight, and exchangable sealing strips, with a casing of TFM or HDPE, (ths material is more wear-resistant due to its high hardness grade, however, the more residue is achieved).
- Suitable for solvents and other highly aggressive media.
- Exchangable sealing strips.
- A number of alternative materials for the main body and sealing strips are available.
- This type of pig requires an absolute flawless pigging pipeline, as the smallest fault in design of the pipeline, can lead to damage or destroy the very sensitive sealing strips.

DN	Pig piping-diameter (DM)	Tension [%]	Material		Magnet	
			Main body	Lips	without magnet	rod-magnet
50	54.5	appr.4	HDPE	TFM / VMQ	yes	yes
			TFM	HDPE	yes	yes
80	82.5	appr.4	HDPE	TFM / VMQ	yes	yes
			TFM	HDPE	yes	yes
100	107.1	appr.4	HDPE	TFM / VMQ	yes	yes
			TFM	HDPE	yes	yes
150	159.3	appr. 4	HDPE	TFM / VMQ	yes	yes
			TFM	HDPE	yes	yes

Table 3 - Design 3

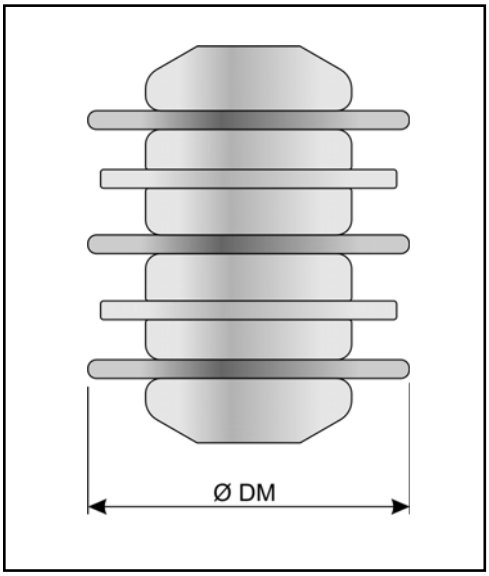

Fig. 8 - Design TWIN 5

Pig TWIN 5

- Exchangable lips.

The pig has the following features:

- Good cleaning performance at high temparature margins.
- More residue compared with TWIN 1 - 3
- Exchangable lips

DN	Pig piping-diameter (DM)	Tension [%]	Material		Magnet	
			Main body	strip lips	without magnet	rod-magnet
50	54.5	appr. 5	PA	NBR	yes	yes
			HDPE	Viton	yes	yes
80	82.5	appr. 5	PA	NBR	yes	yes
			HDPE	Viton	yes	yes
100	107.1	appr. 5	PA	NBR	yes	yes
			HDPE	Viton	yes	yes
150	159.3	appr. 5	PA	NBR	yes	yes
			HDPE	Viton	yes	yes

Table 4 - Design TWIN 5

Dimensions and Weights:

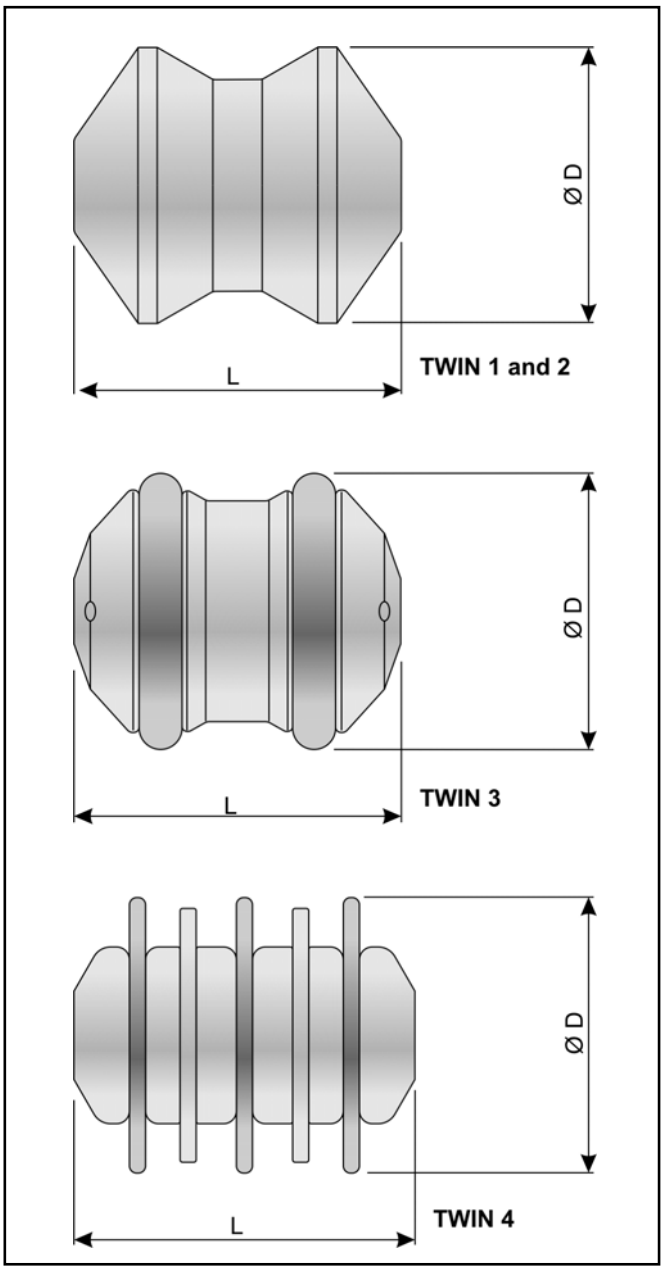

Fig. 9 - Dimensional drawing of pig Series 28m

DN		50	80	100	150	200
D	TWIN 1	57	86	112	166	212
	TWIN 2	57	86	112	166	-
	TWIN 3	56	85	110	165	-
	TWIN 5	58	88	113	171	-
L		68	102	128	212	268
Weight in kg	TWIN 1	0.25	0.68	1.3	4.5	8.3
	TWIN 2	0.25	0.62	1.2	4	-
	TWIN 3	0.2	0.52	0.85	2.8	-
	TWIN 5	0.3	0.7	1.4	5	-

Table 5 - Dimensions in mm and Weights in kg

Selection and sizing of pig:

1. Determine the required nominal diameter.
2. Selection of pig-type in accordance with the Tables 1 to 4

Ordering text:

Pigs Series 28m, TWIN . . .
DN . . . .
Selection of material: . . . . .
Others: . . . . .

Note: All relevant details regarding the version ordered, which deviate from the specified version in this technical description data, can be taken if required, from the corresponding order confirm.

For your special requirements, please contact our technical sales department.

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