

**Full Service
from one source!**



Logistics for:

Plastics

Minerals

Food

Feed

Gas transports



INEOS

Bulk haulier safety day
Brussels, Nov. 21st, 2019



Best solutions in bulk logistics



Best solutions in bulk logistics

SCHMIDT - A Family Company



Picture from left: Thomas Schmidt, Sonja Többe-Schmidt, Susanne Schad-Schmidt and Horst Schmidt

Since the foundation
in 1948
the family company

SCHMIDT

has grown into one of
leading logistics providers
for dry-bulk products.

The company



More than 2,500 employees



49 branch offices (trucking) worldwide
26 branch offices (Gas) in Europe



Oversea cooperations



902 silo trucks
231 trucks for Gas transports
52 trucks for mineral transports



Nearly 6,500 Container / 340 Chassis



1,374 silos for bulk commodity



171.320 m² warehouses for packed goods



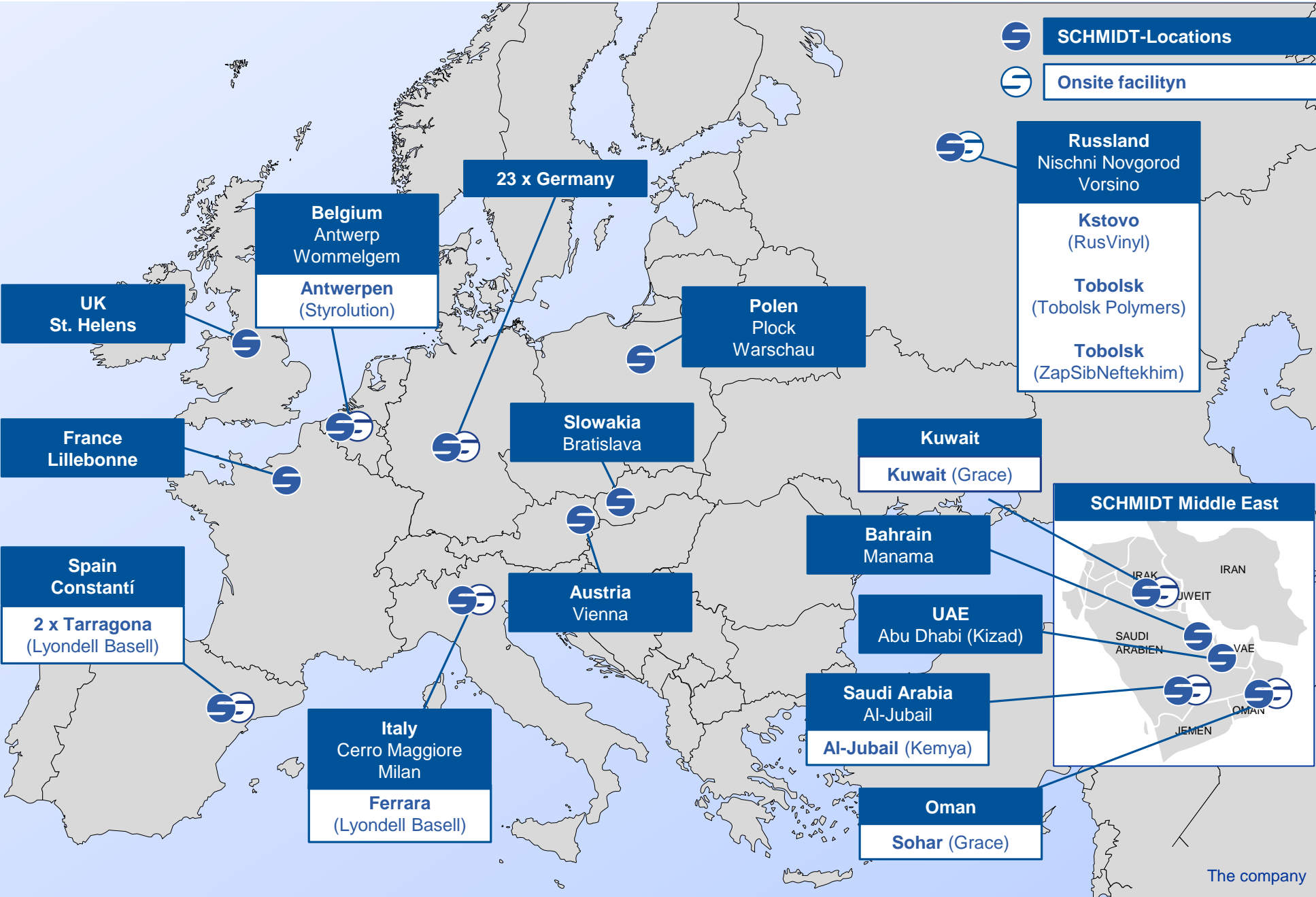
Special-Equipment for product handling

History:

1948 Heilbronn	2007 Plock (Poland)
1967 Langweid-Foret	2007 SCHMIDT Grewer Gastransporte
1969 Hünfeld-Kirchhasel	2008 St. Helens (Great Britain)
1971 Wommelgem (Belgium)	2009 Office in Abu Dhabi (UAE)
1973 Wesseling	2011 Frankfurt a. M. / Basell & Ticona
1976 SCHMIDT-Gastransporte	2011 Ferrara / Basell (Italy)
1981 Vienna (Austria)	2012 EBH Duisburg
1982 Cologne-Niehl	2013 MST Wesseling
1983 Dover (Great Britain)	2013 Nischni Novgorod (Russia)
1985 Mailand (Italy)	2013 Tobolsk (Russia)
1987 Bayreuth / Basell	2013 SCHMIDT ME Logistics JLT (UAE)
1988 Tarragona (Spain)	2013 Moskau / Neftekhimia (Russia)
1989 Frankfurt a. M.	2013 Sohar / Grace (Oman)
1990 Lillebonne (France)	2014 KombiTerminal Burghausen (KTB)
1990 Budapest (Hungary) and Hürth	2014 Mitra / Gelsenkirchen
1991 Kastl and Münchsmünster	2014 Manama (Bahrain)
1997 Grosslehna and Offenbach	2015 Abu Dhabi / Grace (VAE)
1999 Ludwigshafen	2015 Bratislava (Slovakia)
2002 Marl / Vestolit	2015 Manama (Bahrain)
2003 Hamm-Uentrop	2016 Kizad (UAE)
2003 Warschau (Poland)	2016 Al Jubail / Kemya (Saudi Arabia)
2004 Gersthofen and MKL Schkopau	2017 Abu Dhabi / HQ SCHMIDT ME (UAE)
2004 Antwerp / BASF (Belgium)	2018 Kombi-Terminal Heilbronn (KTHN)
2005 Dormagen & Plock / BOP (Poland)	



SCHMIDT-branch offices worldwide





Best solutions in bulk logistics



Portfolio

Product Portfolio



Road haulage and intermodal transports
of bulk commodity



GasTransports



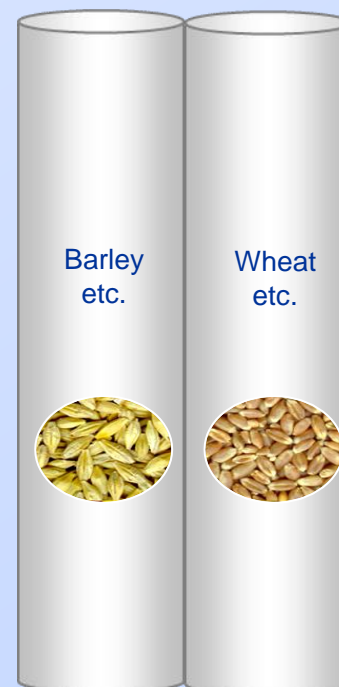
Plastics



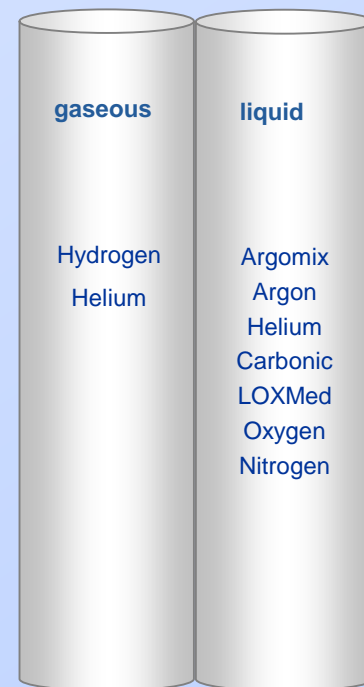
Minerals



Food



Feed



Gases

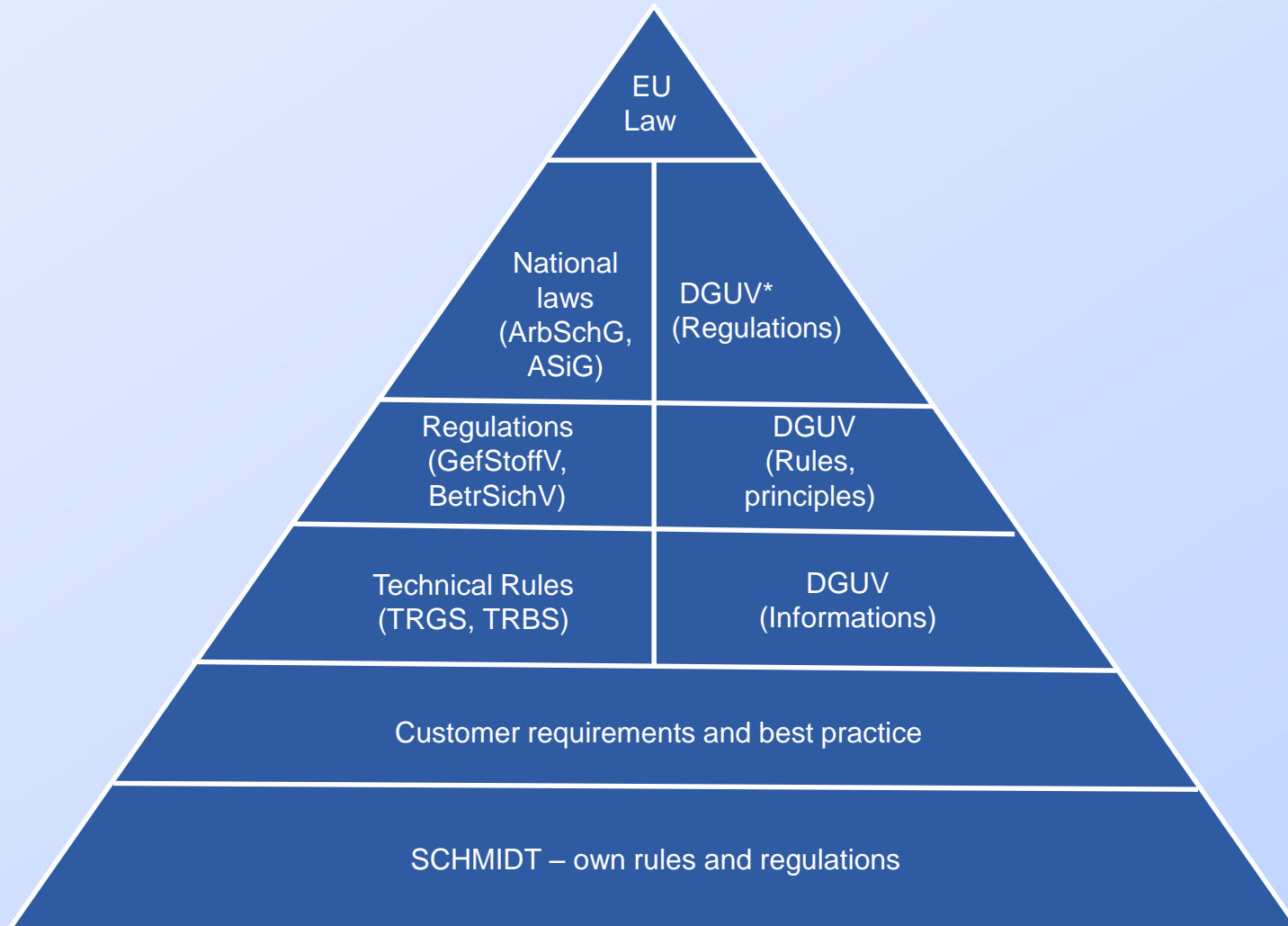


Best solutions in bulk logistics



SCHMIDT – Safety Pyramide

SCHMIDT – Safety Pyramide



***DGUV - German statutory accident insurance**



Best solutions in bulk logistics



SCHMIDT – Driving School

Company-owned driving school

➔ SCHMIDT has an own driving school in Wesseling (Germany)


➔ SCHMIDT has one driving instructor

➔ SCHMIDT has four BBS trainers



Structure of BBS training

- ➔ The driver is instructed to the BBS subject
- ➔ The data of the driver will be recorded
- ➔ Check of the documents (e.g. vehicle registration certificate, EU license, etc.).
- ➔ Departure check is carried out, also for the equipment (e.g. clamps, fire extinguisher safety belt, PPE, etc.).
- ➔ The driver can ask questions, e.g. digital speedometer, setting of the toll unit etc.
- ➔ Technical questions about the truck e.g. Telematics system Astrata, silo handling etc.
- ➔ At the end there is a ride with the truck, the driver is observed while driving



**It is important to encourage the strengths
and minimize the negative behaviors!**

Topics/goals of BBS for SCHMIDT

- ➔ Increasing of safety at work
- ➔ Avoiding dangerous situations
- ➔ Reduce of near Miss accidents
- ➔ Reduce of work loss due to illness and injury
- ➔ Reduce of equipment damages
- ➔ Reduce fuel consumption
- ➔ To reduce repairs, insurance premiums and fines



Best solutions in bulk logistics



Implementation of CEFIC Guidelines

Use of the CEFIC Guidelines

- ➡ 1. Use when creating risk assessments for silo and container unloading
- ➡ 2. Use when creating work instructions for silo and container operators
- ➡ 3. Use when creating drivers initial training presentations

Use of the CEFIC Guidelines

➔ 1. Use when creating risk assessments for silo and container unloading

Nr.	Gefährdungsfaktoren	Gefahrenquelle: Tätigkeit	Gefahrenstelle: Ort, Aggregat, Anlage, Arbeitsmittel	H	A	E	R	Maßnahmen	TM	RR
1. Mechanische Faktoren										
1	Unkontrolliert bewegende Teile, Kippen des Silos	Schwerpunktverlagerung durch das Ankippen des Silos	Entladestelle	4	5	2	11	<p>Mitarbeiter geschult</p> <p>Fahrzeug niemals Kippen, wenn noch kein Druck drauf ist;</p> <p>Vor dem Ankippen Stützen ausfahren; Austarieren des Fahrzeuges;</p> <p>Gekipptes Fahrzeug niemals verfahren;</p> <p>Fahrzeug nicht ruckartig ankippen, Nachrutschen kann Kippen verursachen;</p> <p>Fahrzeug auf einem ebenen und ausreichend festen Grund abstellen</p> <p>Fahrzeug darf nicht auf einem Untergrund mit seitlichem Gefälle gekippt werden</p> <p>Beim Kippen ist auf eine gerade Fahrzeuglinie zu achten.</p>	2,5	4,40
2	Gequetscht werden	Senken des Angekippten ...	Silo	4	4	2	10	<p>Mitarbeiter geschult</p> <p>Aufenthalt unter Lasten strikt verboten</p>	2,0	5,00

Use of the CEFIC Guidelines

2. Use when creating work instructions for silo and container operators

Arbeitsanweisung
 - HSSE 029: Entladen Silofahrzeug,
 Container -

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- Kippen Sie nur auf Ebenen und ausreichend befestigten Untergrund an. Es wirken Kräfte von 28 t auf den Boden.

- Bevor Sie das Fahrzeug Ankippen, müssen Sie die Stützen ausfahren. Beachten Sie hierbei die Bedienungsanleitung des Herstellers, da es zwischen den einzelnen Fahrzeugen Unterschiede geben kann.
 - Hintere Abstützzyylinder soweit ausfahren wie nötig.
 - Restbalgdruck in den Luftbälgen ca. 0,5 bar einstellen.
 - Heben/Senken-Ventil auf STOP stellen.
- Führen Sie eine Sichtkontrolle auf Undichtigkeit des Hydrauliksystems und auf offensichtliche Schäden an Leitungen durch.
- Handeln Sie bei Undichtigkeiten nach Ihren Möglichkeiten um Umweltschäden und Reklamationen zu vermeiden.
- Achten Sie darauf, dass sich Ihr Fahrzeug beim Ankippen nicht auf einem seitlichen Gefälle befindet.
- Beim Ankippen, muss das Fahrzeug in einer geraden Linie befinden.

- Das Fahrzeug muss immer in Waage stehen. Tarieren Sie das Fahrzeug mit entsprechend den Stützen aus. Am Fahrzeug sollte sich eine Wasserwaage (Libelle) befinden.

Arbeitsanweisung
 - HSSE 029: Entladen Silofahrzeug,
 Container -

Revision: 2 / 01.2019
 Blatt: 3 von 7
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- Vorsicht beim Senken der Stützen, es besteht die Gefahr das Sie sich die Füße verletzen.
- Verfahren Sie niemals ein gekipptes Fahrzeug.
- Niemals im angekippten Zustand die Luftfederung nachjustieren.
- Um eine statische Aufladung zu vermeiden, sind die Erdungsklemmen bei der Be- und der Entladung anzuschließen.

- Beim Entladen, dürfen Sie sich nicht im Gefahrenbereich aufhalten.
- Beim Silofahrzeug, ist der sichere Bereich hinter dem Fahrzeug.

Sicherheitszone

- Beim Containerfahrzeug seitlich hinter dem Fahrzeug. Der Gefahrenbereich hängt hierbei von der Containergröße ab.

40 ft. Container

30 ft. Container

20 ft. Container

- Bevor Sie Ankippen, müssen Sie beim Container die ordnungsgemäße Verriegelung kontrollieren.

Use of the CEFIC Guidelines



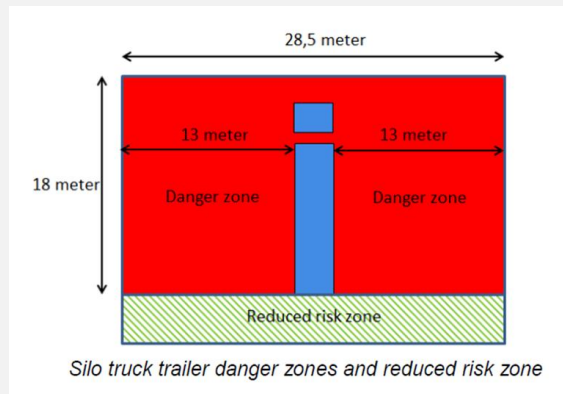
3. Use when creating drivers initial training presentations

Grounding during loading and unloading



- Due to the friction caused by the load during loading and unloading, the vehicle must be earthed.
- Grounding removes the hazardous static charging which can cause dust explosion and electric shock.
- To avoid static charging, the earthing terminals have to be connected during loading and unloading.
- The grounding points are marked (see example symbol on the left).

Reduced risk zone: Silo truck



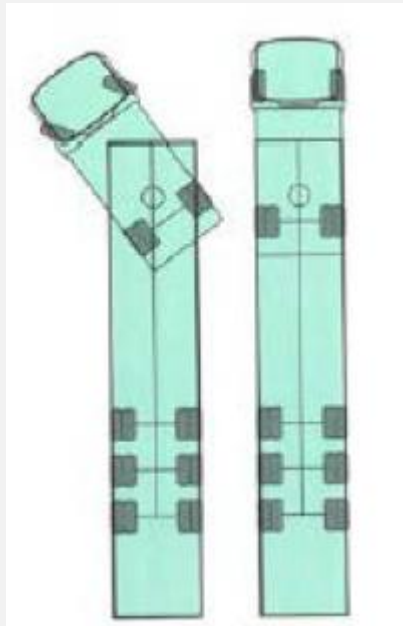
- During the loading or unloading process, the driver has to monitor the action and is not allowed move away.
- The driver has to stay behind the silo during tipping the silo.
- Behind the silo is the reduced risk zone.
- The tipping during storm is prohibited.

Trailer support legs



- Activate the handbrake during loading and unloading and also use wheel chocks on steep terrain.
- Before tipping the vehicle, you must extend the supports. Observe the operating instructions of the manufacturer, as there may be differences between the individual vehicles.
- Tilt only on level and sufficiently paved ground. There are forces of 25t on the ground.

Trailer support legs



- When tilting the silo, the vehicle must be in a straight line.
- Make sure that your vehicle is tipping, not on a steep slope
- The vehicle must always be in balance. Tare the vehicle according to the water bubble.
- Never drive a tilted vehicle!

Additional hints



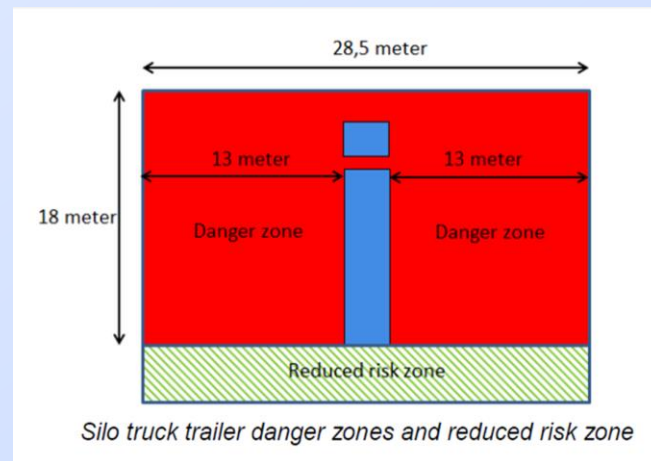
- Make sure that you do not damage bridges, cables, etc.
- Never climb under the tipped silo.
- When tilting under high-voltage lines, make sure there is at least 6 meters gap between the boiler and the pipe.



Experiences and problems at unloading stations

SCHMIDT - Experiences / problems at unloading stations (Feedback of Drivers and unloading stations)

- ➔ It is often impossible to keep the distances, because the space on the sites doesn't allow it



- ➔ In case of overload by loading staff, the driver against the rules has to unload by himself
- ➔ Registration times for unloading are very long
- ➔ Driver has to wear protective equipment already at registration, otherwise he will be rejected
- ➔ There are many forms to fill in, which consumes a lot of time



Technical measures – helping to improve the overall safety

SCHMIDT - Technical measures

1. Product hose couplings

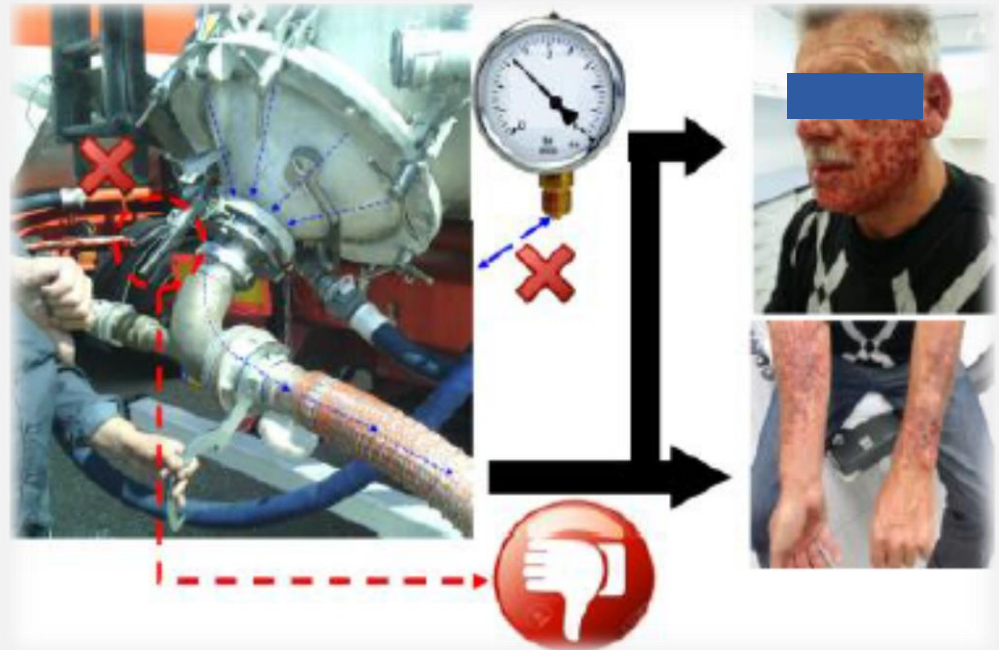
At the moment the usual practice is to use the silicone safety brackets to secure the product hose against opening (see attached pictures below)



SCHMIDT - Technical measures

1. Product hose couplings

After the working accident at a competitor in 2015. Schmidt has become aware of the problem with the coupling safety. In the mean time also Schmidt had several near miss accidents, so we were looking for a new solution to perform the unloading more safely.



SCHMIDT - Technical measures

1. Product hose couplings

At the moment SCHMIDT is testing the new “Storz” couplings, which can be blocked without an additional bracket (see attached pictures below).



SCHMIDT - Experience with Safety and Quality Best Practice Guidelines

2. Product unloading from 20' containers

SCHMIDT has recognized that the previous way containers can be very unsafe to unload. Therefore we developed a new chute, which allows to unload the container with only one open door.



“Best Practice Guidelines for the Safe Use of “Lined” Iso Box Containers for Movement of Dry Bulk Products”



Best solutions in bulk logistics



Operation Clean Sweep (Avoiding of plastic wastes in the environment)

SCHMIDT – Reasons for „Operation Clean sweep“

For several years marine scientists have reported more and more that birds, turtles and fishes devour a variety of plastic objects which could be detrimental or even fatal to their health. Most of these items are garbage of consumer goods, possibly carelessly thrown away or lost.

Part of this waste consists of granules, which is used for the production of plastic products. The pellets are small and look similar to organisms that are prey of certain animals and may cause malnutrition and starvation.

The consumers are responsible for the proper disposal of used products, at the same time the plastics industry has to curb the products they handle, that means pellets / granules. Operation Clean Sweep® (OCS) is specifically designed to prevent the discharge of pellets / granules into the aquatic environment and the marine environment.



The plastics industry and its end users should therefore ensure proper handling and disposal of granules. It should be prevented that the pellets get into waters that ultimately flow into the sea. If they still find their way into the sewage, you should consider options for collection.

SCHMIDT – Reasons for „Operation Clean sweep“

- ➔ Responsibility for the protection of the environment in all divisions
- ➔ Important partner of the petrochemical industry within the supply chain as well as off- and onsite logistics
- ➔ Takeover of the produced plastics and thus direct product responsibility
- ➔ Various interfaces for plastics to reach the environment:
 - Takeover / unloading by silo truck / 30'container
 - Silo cleaning
 - Remove and disposal of used inliners
 - Filling and rebulking processes



How can „Clean Sweep“ be implemented ?

Implementation and awareness



Sensitization of all employees of the dangers



Installation of blowers on loading points (example Tarragona)

- 15 sewer tunnels equipped with meshes
- 32 storm sewers equipped with meshes
- 212 kennels sealed
- Frequent monitoring



Implementation and awareness



Pick up all granules lying on the ground after loading/refilling and dispose in special containers



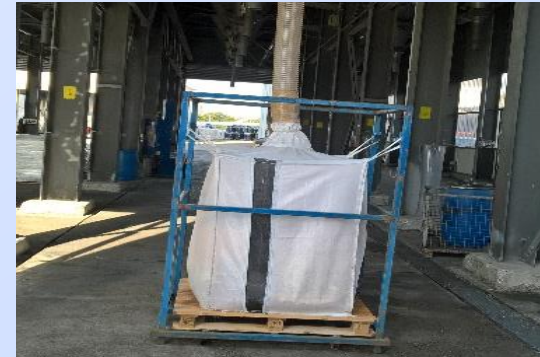
Installation of granule collectors in pits



Implementation and awareness



During cleaning of silos, use suitable granule / powder collectors



Ensure that no granules / powders enter drains



Check separation pits regularly (maintenance plan)





**Full service from
one source - worldwide!**



Best solutions in bulk logistics.