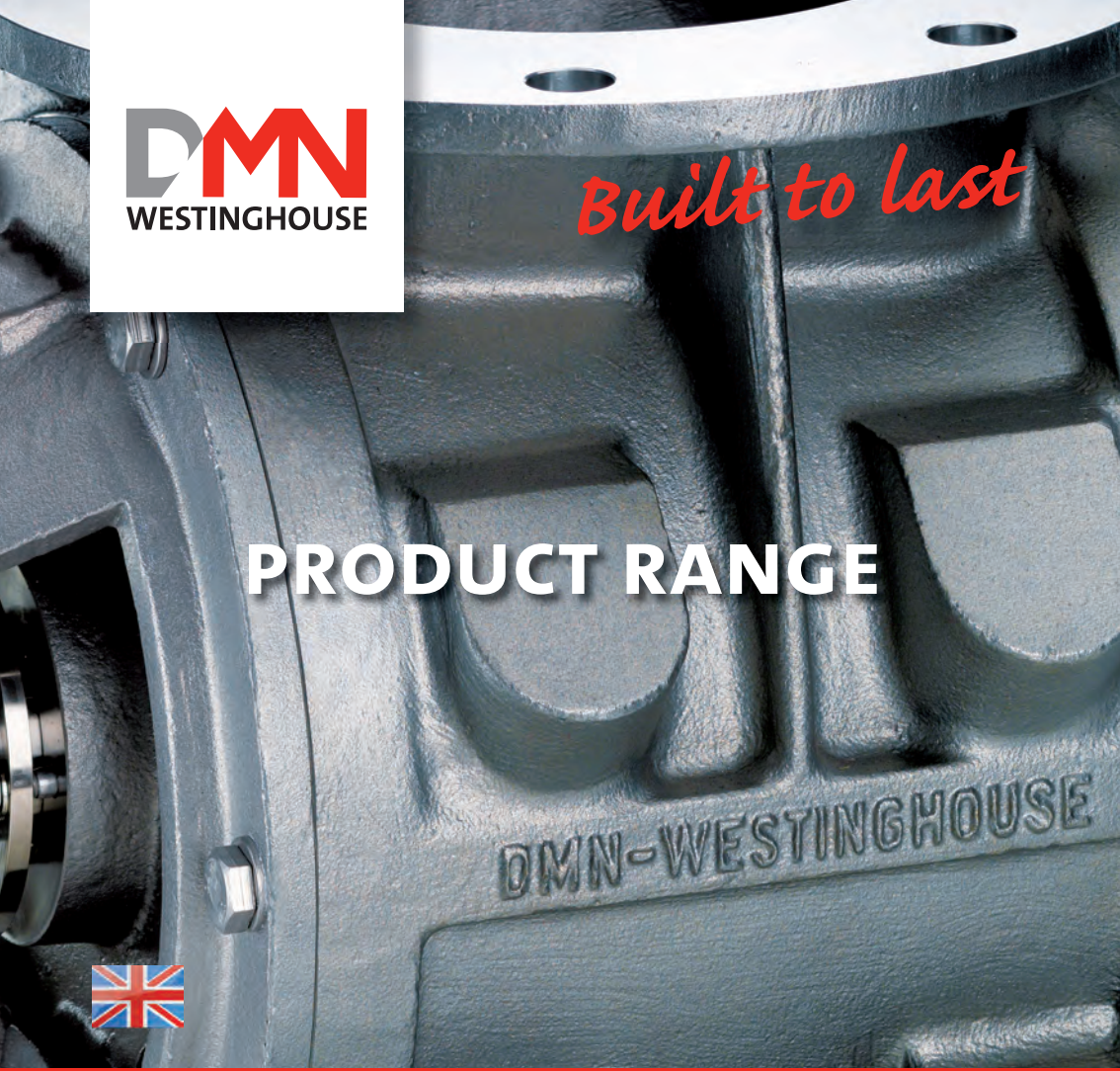
DMN WESTINGHOUSE

Built to last

PRODUCT RANGE



COMPONENTS FOR BULK SOLIDS HANDLING

Introduction

The international world of processing comprises a large variety of industries and companies. DMN-WESTINGHOUSE has been supplying rotary valves and diverter valves to the bulk solids handling industry for more than 45 years. As an independent company with no involvement in system design, our sole activity is the development, manufacture and sale of these components.

Selecting the right components is critical to the success of any dry bulk material handling system. DMN-WESTINGHOUSE offers tailor-made solutions to the global food, dairy, pet food, plastics, (petro) chemical, pharmaceutical, mineral, power and biomass industries. Our line of rotary valves and diverter valves comprises a number of universal components that are suitable for many applications. We also have a range of dedicated components for use in specific industries of to handle specific products.

We are dedicated to providing superior service. With our extensive network of offices and distributors around the world we are close to our customers and direct contact is easy to establish. Our experienced staff and long-term partners offer a high level of service and support all over the world.

Built to last

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Rotary valves

Feed your process

Rotary Valves	AL AXL*	BL BXL*	DAIRY CIP	MZC	SAL	OS GOS	HP	AML	GL	USAL MLD MALD MGLD MUSD	DL	ZL
Food	●	●	●	●	●	●	○	●	○	●	◐	◐
Dairy	◐	◐	●	●	●	○	○	◐	○	○	○	○
Animal Feed	●	●	◐	●	◐	●	○	●	○	●	●	●
Pharma	◐	◐	●	●	●	◐	○	◐	○	○	○	○
Plastics	◐	◐	○	◐	○	◐	●	◐	●	◐	◐	●
Petro-Chemical	◐	◐	○	◐	○	◐	●	◐	●	◐	◐	◐
Mineral	●	●	○	◐	○	●	○	●	○	◐	◐	●
Power/Biomass	●	●	○	◐	○	◐	○	●	○	◐	●	●
Recycling	◐	◐	○	○	○	●	◐	●	◐	●	●	●

● *Recommended* ◐ *Sometime used* ○ *Not recommended*

AL-AXL



- High filling efficiency
- Sheared angle inlet
- Minimum air leakage
- Customised solutions
- Drilled flanges in accordance with PN10, ANSI 150lbs and JIS
- Easy detachable versions available
- Versions conforming to EC 1935/2004 available
- Explosion shock resistant up to 10 bar g
- Flameproof versions for both St1 and St2 products available
- Versions conforming to ATEX 2014/34/EU available
- CIP-suitable versions conforming to EHEDG Type EL Class I available

Size Type AL	100	150	175	200	250	300	350	400	450	500
Size Type AXL			200	250	300	350				
Ltr/rev*	0,8	2,5	5,5	10,5	19	34	58	91	135	230

* at 100% filling

AL-AXL DAIRY



- USDA Dairy Accepted
- Versions conforming to EC 1935/2004 available
- Easy removal of rotor for fast and efficient cleaning
- Smooth product contact surfaces in food grade material
- Rotor pockets radiused and polished to Ra=0,8 µm (150 grit)
- Rotor vanes chamfered on all edges
- Explosion shock resistant up to 10 bar g
- Flameproof versions for both St1 and St2 products available
- Versions conforming to ATEX 2014/34/EU available
- CIP-suitable versions conforming to EHEDG Type EL Class I available

Size Type AL	150	175	200	250	300	350
Size Type AXL		200	250	300	350	
Ltr/rev*	2,5	5,5	10,5	19	34	58

* at 100% filling

AL-AXL MZC



- Supporting bars for easy removal of rotor and end cover
- Direct drive or chain drive
- Narrow, flexible and maintenance free construction with direct drive
- Hygienic, USDA Dairy Accepted versions available
- Increased safety at work
- Explosion shock resistant up to 10 bar g
- Flameproof versions for both St1 and St2 products available
- Versions conforming to EC 1935/2004 available
- Versions conforming to ATEX 2014/34/EU available
- CIP-suitable versions conforming to EHEDG Type EL Class I available

Size Type AL	150	175	200	250	300	350
Size Type AXL		200	250	300	350	
Ltr/rev*	2,5	5,5	10,5	19	34	58

* at 100% filling

SAL



- For sanitary use
- Easy detachable rotor
- Low capacity
- Complete valve highly polished (inside and outside)
- Product surfaces FDA approved
- Maximum product temperature up to 100 °C
- System pressure up to 1 bar g
- Versions conforming to EC 1935/2004 available
- Versions conforming to ATEX 2014/34/EU available

Size	50	65	80	100	150
Ltr/rev*	0,07	0,13	0,25	0,8	2,5

* at 100% filling

OS



- High capacity
- High filling efficiency
- Sheared angle inlet
- Minimum air leakage
- Customised solutions
- Versions conforming to ATEX 2014/34/EU available

Size	400	450	500
Ltr/rev*	91	135	230

* at 100% filling

HP



- Special inlet for maximum protection against product degradation
- High filling efficiency
- Lowest air leakage through self-adjusting seals
- Robust construction
- Easy to assemble and disassemble
- Customised solutions
- Drilled flanges in accordance with PN10 and ANSI 150lbs
- Explosion proof models available up to 10 bar g**
- Flameproof versions available suitable for St2 products**
- Versions conforming to ATEX 2014/34/EU available**

** *pending*

Size Type	200	250	300
Ltr/rev*	8,3	15,5	30

* at 100% filling

BL-BXL



- High filling efficiency
- Sheared angle inlet
- Minimum air leakage
- Customised solutions
- Drilled flanges in accordance with PN10, ANSI 150lbs and JIS
- Easy detachable versions available
- Versions conforming to EC 1935/2004 available
- Explosion shock resistant up to 10 bar g
- Flameproof versions for both St1 and St2 products available
- Versions conforming to ATEX 2014/34/EU available
- CIP-suitable versions conforming to EHEDG Type EL Class I available

Size Type BL	150	175	200	250	300	350
Size Type BXL		200	250	300	350	
Ltr/rev*	2,5	5,5	10,5	19	34	58

* at 100% filling

BL-BXL DAIRY



- USDA Dairy Accepted
- Versions conforming to EC 1935/2004 available
- Easy removal of rotor for fast and efficient cleaning
- Smooth product contact surfaces in food grade material
- Rotor pockets radiused and polished to Ra=0,8 µm (150 grit)
- Rotor vanes chamfered on all edges
- Explosion shock resistant up to 10 bar g
- Flameproof versions for both St1 and St2 products available
- Versions conforming to ATEX 2014/34/EU available
- CIP-suitable versions conforming to EHEDG Type EL Class I available

Size Type BL	150	175	200	250	300	350
Size Type BXL		200	250	300	350	
Ltr/rev*	2,5	5,5	10,5	19	34	58

* at 100% filling

BL-BXL MZC



- Supporting bars for easy removal of rotor and end cover
- Direct drive or chain drive
- Narrow, flexible and maintenance free construction with direct drive
- Hygienic, USDA Dairy Accepted versions
- Versions conforming to EC 1935/2004 available
- Increased safety at work
- Special blow through versions for cyclone or spray drier applications
- Explosion shock resistant up to 10 bar g
- Flameproof versions for both St1 and St2 products available
- Versions conforming to ATEX 2014/34/EU available
- CIP-suitable versions conforming to EHEDG Type EL Class I available

Size Type BL	150	175	200	250	300	350
Size Type BXL		200	250	300	350	
Ltr/rev*	2,5	5,5	10,5	19	34	58

* at 100% filling

GOS



- High capacity
- High filling efficiency
- Sheared angle inlet
- Minimum air leakage
- Customised solutions
- Versions conforming to ATEX 2014/34/EU available

Size	400	450	500
Ltr/rev*	91	135	230

* at 100% filling

AML



- High filling efficiency
- Large inlet size in relation to rotor volume
- Minimum air leakage
- Explosion proof models available up to 10 bar g
- Customised solutions
- Body with one round and one square flange
- Round flange drilled in accordance with PN10, ANSI 150lbs or JIS
- Usable as transition piece from round to square and vice versa
- Versions conforming to EC 1935/2004 available
- Versions conforming to ATEX 2014/34/EU available

Size	100	150	200	250	300	350	400
Ltr/rev*	0,8	2,5	5,5	10,5	19	34	58

* at 100% filling

USAL

EC 1935/2004



- High filling efficiency
- Sheared angle inlet
- Minimum air leakage
- Customised solutions
- Easy detachable versions available
- Versions conforming to EC 1935/2004 available
- NFPA69 compliant models available
- Cast iron versions currently available

Size	203,2 (8")	254 (10")	304,8 (12")
Ltr/rev*	5,38	10,47	18,96

* at 100% filling

MLD/MALD



MLD



MALD

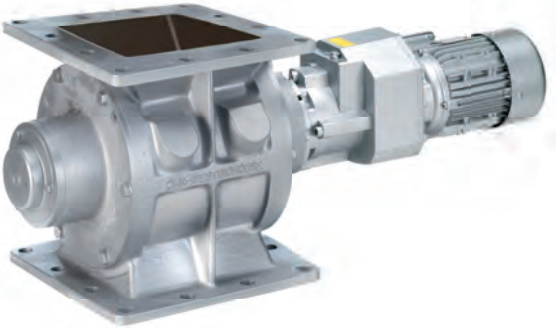
- Compact design
- Substantial construction
- Standard fitted with direct drive
- Pressure surge proof up to 10 bar g
- Flange drillings available to PN10, ANSI 150lbs
- Suitable for frequency inverter control
- Sheared angle inlet
- Versions conforming to EC 1935/2004 available
- Versions conforming to ATEX 2014/34/EU available

Size MLD	100	150	200	250	300	350	400
Size MALD	100	150	175	200	250	300	350
Ltr/rev*	0,8	2,5	5,5	10,5	19	34	58

* at 100% filling

MUSD

EC 1935/2004



- Compact design
- Substantial construction
- Standard fitted with Nord direct drive
- Pressure surge proof up to 10 bar g
- Suitable for frequency inverter control
- Sheared angle inlet
- Cast irons versions currently available
- Square-square flanges
- Versions conforming to EC 1935/2004 available

Size	200	250	300
Ltr/rev*	5,5	10,5	19

* at 100% filling

GL



- Maximum protection against product degradation
- High filling efficiency
- Large air vent opening
- Robust construction
- Available with direct drive or chain driven
- Flanges drilled in accordance with PN10, ANSI 150lbs and JIS
- Versions conforming to ATEX 2014/34/EU available

Size	150	200	250	300	350
Ltr/rev*	5	10	17,5	32	79

* at 100% filling

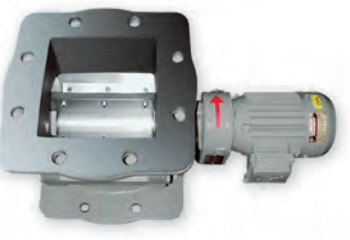
DL



- Minimum air leakage
- Rotors with adjustable polyurethane or fixed chamfered mild steel blades
- Suitable for both round and square counter flanges
- Ex stock delivery for standard executions
- Versions conforming to ATEX 2014/34/EU available
- Flameproof versions suitable to handle St2 products available

Size	200	250	300
Ltr/rev*	6	8,5	19

* at 100% filling



ZL



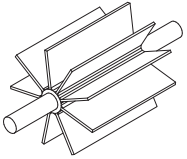
- Low duty valve
- Suitable for general purposes
- Suitable for both round and square counter flanges
- Direct drive
- Cast iron execution
- Ex-stock delivery
- Versions conforming to ATEX 2014/34/EU available**

*** pending*

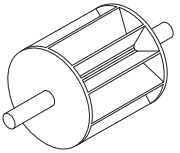
Size	200	250	300
Ltr/rev*	5,5	10,5	19

* at 100% filling

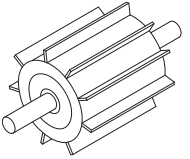
Rotor options



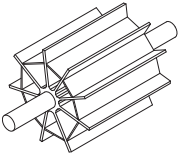
Fixed blades



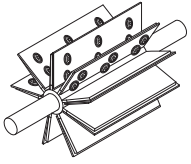
End disc
Fixed blades



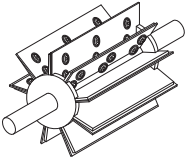
Reduced capacity (RC)
Fixed blades



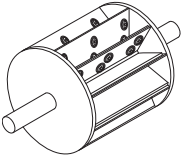
RC open end
Fixed blades



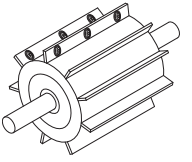
Replaceable and
adjustable blades



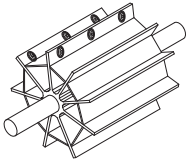
Semi end-disc
Replaceable and
adjustable blades



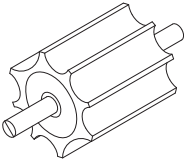
End-disc
Replaceable and
adjustable blades



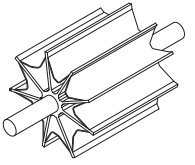
Reduced capacity
Replaceable and
adjustable blades



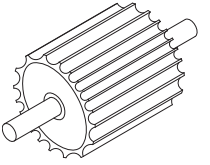
RC open end
Replaceable and
adjustable blades



Scalloped



Scalloped open end



Fine dosing

Accessories



Inlet restrictor



Ventbox



Dropoutbox



Pressure regulator for air purged seals



Rotor interference detection (RID)

Diverter valves

The Art of Diverting

Diverter Valves	PTD	SPTD	SPTDS	2-TDV 3-TDV	M-TDV	GPD	SBD	BTD	FDV	FVV
Food	●	●	●	●	●	●	●	●	●	●
Dairy	●	●	●	●	●	●	●	●	●	●
Animal Feed	●	●	●	●	●	●	●	●	●	●
Pharma	●	●	●	●	●	●	●	●	●	●
Plastics	●	●	●	●	●	●	●	●	●	●
Petro-Chemical	●	●	●	●	●	●	●	●	●	●
Mineral	●	●	●	●	●	●	●	●	●	●
Power/Biomass	●	●	●	●	●	●	●	●	●	●
Recycling	●	●	●	●	●	●	●	●	●	●

● *Recommended* ● *Sometime used* ● *Not recommended*

PTD



PTD with static seals



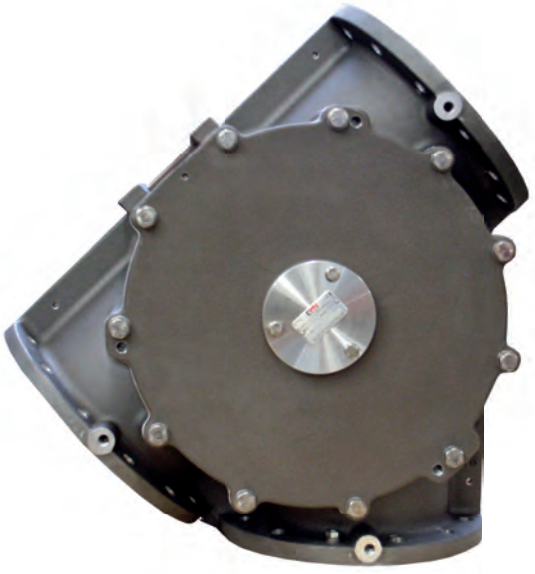
PTD with inflatable seals

- Pressure shock resistant up to 10 bar*
- Two channel design
- Minimal maintenance
- Quick clean version available
- Compact form
- User friendly design
- No moving parts on the outside
- Pressure up to 3 bar g with static seals
- Sizes 50-150 up to 6 bar g with inflatable seals
- Versions with electrical drive available
- Wear resistant pipes optionally available
- Versions conforming to EC 1935/2004 available
- Versions conforming to ATEX 2014/34/EU available

* Size 200 excluded

Size	50	65	80	100	125	150	200

SPTD



- Universal application
- Sizes from NB 150 up to 400 (6" to 16")
- Available in metric or inch pipe size
- Pressure up to 3 bar g
- Maximum product temperature +80 °C for standard models
- For diverting only
- Static or dynamic sealing
- No moving parts on the outside
- Special versions available
- Versions conforming to EC 1935/2004 available
- Versions conforming to ATEX 2014/34/EU available

Size*	150	200	250	300	350	400

* for smaller sizes see SPTDS

SPTDS



- Universal application
- Sizes from NB 50 up to 125
- Pressure up to 1 bar g
- Maximum product temperature +80 °C
- For diverting only
- Static sealing
- No moving parts on the outside
- Versions conforming to EC 1935/2004 available
- Versions conforming to ATEX 2014/34/EU available

Size*	50	65	80	100	125

* for larger sizes see SPTD

GPD



- USDA Dairy Accepted versions available
- Rugged cast construction
- Available in stainless steel AISI 316, cast iron and aluminium
- Sealed and permanently lubricated outboard bearings
- Easily detachable design
- Change on the fly with most powders
- One-piece body with removable end plates and rotating blade assembly
- Pneumatic or manual operation
- Flanges drilled according to PN10 or ANSI 150lbs
- Versions conforming to EC 1935/2004 available
- Versions conforming to ATEX 2014/34/EU available

Size	150	200	250	300

2/3-TDV



3-TDV



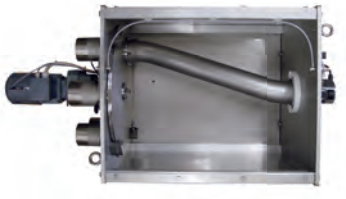
2-TDV

- USDA Dairy Accepted versions available
- Available with 2 or 3 ports
- Smooth product contact surfaces
- Inflatable seals
- Pressure from -0,8 up to 3 bar g
- Multiple choice of line connections
- Minimised product degradation
- Converging and diverging applications
- Easy detachable construction
- Temperature range -20 °C up to +100 °C
- All stainless and aluminium stainless configurations
- Versions conforming to EC 1935/2004 available
- Versions conforming to ATEX 2014/34/EU available

Size	40	50	65	80	100	125	150

M-TDV





- USDA Dairy Accepted versions available
- Up to 14 ports
- Inflatable seals
- All product contact materials FDA approved
- Smooth product contact surfaces
- Minimal product degradation
- Pressure from -0,8 up to 3 bar
- Temperature range -20 °C to +100 °C
- Converging and diverging applications
- Multiple choice of line connections
- Compact design
- Versions conforming to EC 1935/2004 available
- Versions conforming to ATEX 2014/34/EU available

Size	40	50	65	80	100	125	150

SBD



SBD-II with butterfly valves

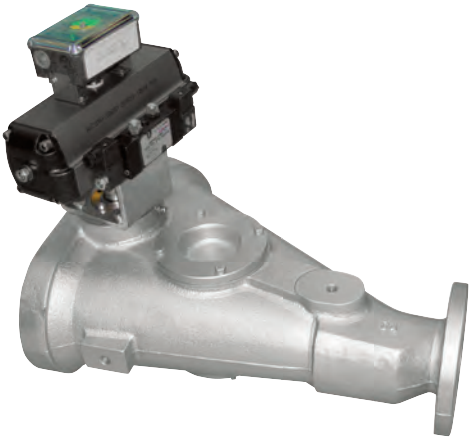


SBD-I with ball valves

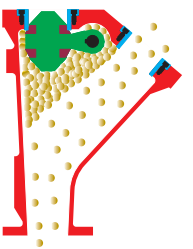
- Available with Ball (SBD-I) or Butterfly (SBD-II) Valves
- SBD-II CIP suitable
- SBD-I optionally CIP suitable
- Sizes 50, 65, 80 and 100
- Excellent for hygienic environments
- Suitable for pneumatic conveying of powders and granulates
- Tri-clamp connection
- Stainless steel execution and actuator
- Competitive pricing
- Versions conforming to EC 1935/2004 available

Size	50	65	80	100

BTD



- For abrasive products
- Suitable for systems with high pressures and temperatures
- Body made from ductile spheroidal cast iron
- Replaceable wear bushings on outlet
- Grease lubricated shaft seals
- Seals can be replaced with the valve in place
- Versions conforming to ATEX 2014/34/EU available



Size	65	80	100	125	150	200	250

FDV



FDV-F

- Compact form
- Optimal sealing
- Simple construction
- Minimal pressure loss
- Available with flange or pipe fittings
- Flanges drilled in accordance with PN10, ANSI 150lbs and JIS
- Cast iron, aluminium or 316 stainless steel
- Versions conforming to EC 1935/2004 available
- Versions conforming to ATEX 2014/34/EU available

Size FDV-F	50	65	80	100	125	150	200	250
Size FDV-P	50	65	80	100	125	150		

FVV



- Saving system costs
- Compact design
- Easy maintenance
- Optimal sealing
- Flange or pipe fittings
- Flanges drilled in accordance with PN10 and ANSI 150lbs
- Cast iron, aluminium or stainless steel
- Versions conforming to EC 1935/2004 available
- Versions conforming to ATEX 2014/34/EU available



Size	50	65	80	100	125	150

Other Components

Built to last

Other Components	MORRIS	PRV	DUC
Food	⚙	☼	⚙
Dairy	⬢	☼	⚙
Animal Feed	⚙	⚙	☼
Pharma	⬢	☼	⚙
Plastics	⚙	⚙	⬢
Petro-Chemical	⚙	⚙	⬢
Mineral	⚙	⚙	⬢
Power/Biomass	⚙	⚙	⬢
Recycling	⚙	⚙	☼

⚙ *Recommended* ☼ *Sometime used* ⬢ *Not recommended*

MORRIS



- The original Morris compression coupling
- Easy to install
- Substantial and reliable construction
- Competitive pricing
- Electrical conductivity
- Available for practically ever pipe diameter

PRV



- Reliable
- Compact form
- Maintenance free
- Use of non corrosive materials
- Easy disassembly and inspection

DUC



- Prevents bridging of product at the hopper outlet
- Smooth flow of material
- Maximum discharge efficiency
- Cast housing, explosion proof construction
- Compact forms
- Easy clean features
- No separation of premixed product

Legislation

In certain parts of the process industry it is very important that product contamination is prevented in the process. When dealing with powders, there is also always a danger of dust explosions. In order to protect public health and ensure safe working conditions, governments have drawn up official legislation for systems and components. Moreover, private organisations have created specifications components should comply with in order to meet the required branch or system-specific requirements.

USDA | With regards to the USDA (United States Department of Agriculture), our AL, AML and BL rotary valves are tested and certified USDA Dairy Accepted. This also applies to our 2- and 3-TDV tube diverters, M-TDV multiport diverter and GPD gravity plug diverter. This means that these components meet the high standards that apply in the US food, dairy, pet food and other related industries.

ATEX | Process systems and components often have to be able to withstand explosions and prevent fires from passing the component. This has resulted in official European legislation, known as the ATEX 2014/34/EU Directive. All DMN rotary valves and diverter valves are also available in ATEX 2014/34/EU compliant versions.

EHEDG | In 2011 DMN-WESTINGHOUSE was awarded the official EHEDG Type EL Class I certificates of compliance for its hygienic CIP rotary valves. The components in question were evaluated for compliance with the Hygienic Equipment Design Criteria of the EHEDG and were declared to meet these criteria. These certificates also enable DMN-WESTINGHOUSE to offer a range of components that are suitable for hygienic 'clean in place' (CIP) processing systems.

EC 1935/2004 | The European regulation EC 1935/2004 applies to all food contact materials. With regard to the use of these materials as parts in our components, we can supply a declaration of compliance and appropriate documentation that demonstrate compliance to the EC 1935/2004 regulation and its supporting regulations EC 10/2011 and EC 2023/2006. The materials used also conform to FDA regulations with regard to food contact.

Contact

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Rotary Valves



Diverter Valves



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