

Sugar Processing

Specialized Screw Conveyors CX



1



Description ▼

CX trough-type Screw Conveyors and Feeders are suitable for all those applications where perfect cleanliness, contamination-free operation, weather and corrosion-resistance play an essential role. They are widely used in sugar processing plants.

Function ▼

Sugar processing specialized CX stainless steel (aisi 304) screw conveyor, installed under centrifuges and to feed material to the drum dryer, with ribbon flight, diameter range up to 600 mm (from 700 mm to 1,000 mm contact WAMGROUP®), equipped with total discharge system (suitable to convey sugar with a 0.3% of humidity). The inner shaft is manufactured of carbon steel coated with stainless steel to increase its structural resistance.

Technical Features / Performance ▼

- ▶ 304 L / 316 L stainless steel
- ▶ Modular trough and screw sections
- ▶ Square or cylindrical WAM® standard inlet and outlet spouts welded on the trough orthogonally as to the conveyor axis
- ▶ Bolted modular trough cover complete with strip gasket
- ▶ End bearing assemblies with shaft, roller bearings and externally adjustable packing glands
- ▶ Intermediate hanger bearings complete with shaft and self-lubricating long-life slide bushes

Benefits ▼

- ✓ **No material residue thanks to perfectly smooth trough surface;**
- ✓ **Trough end flanges welded on high precision jigs;**
- ✓ **Trough-bolted end plates complete with laser-cut drillings to accommodate end bearing assemblies;**
- ✓ **Screws made up of modular helicoids flighting with constant or variable pitch continuously welded on both sides on high quality centre pipe;**
- ✓ **Screw sections connected through bolted or splined shaft couplings;**
- ✓ **Screws electronically balanced.**

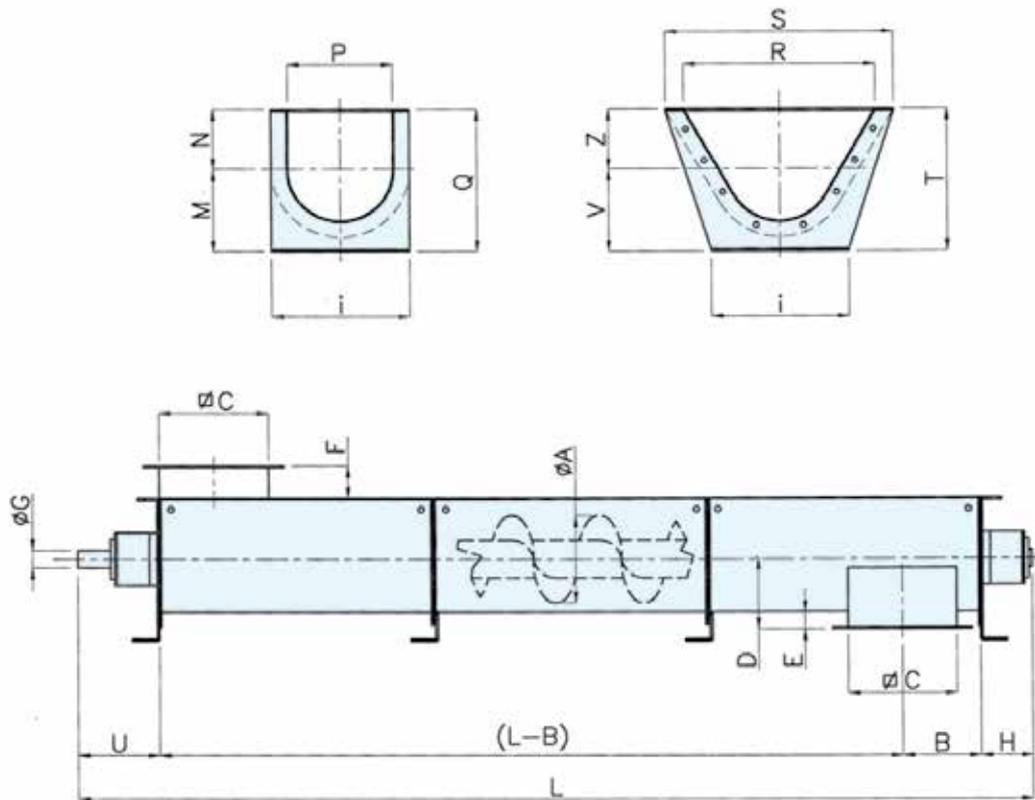


Sugar Processing

Specialized Screw Conveyors CX



Overall Dimensions ▼



ØA	100	120	150	200	250	300	350	400	500	600	700	800	1000
B	170	170	170	195	220	260	290	340	390	440	Please contact WAMGROUP®		
C	175	175	175	225	275	325	375	425	525	625			
D	130	130	130	165	195	225	225	285	340	395			
E	40	40	40	50	55	60	65	70	75	80			
F	60	60	60	60	60	60	60	80	80	80			
ØG	25	25	35	35	35	35-45	35-45	45	55-65	55-65-80			
H	115	115	125	125	125	125-145	145	145-155	155-165	155-165-180			
I	265	265	265	315	365	435	485	540	655	755			
L	Rounded up to 0.5 m												
M			145	185	215	245	275	305	380	465			
N			115	135	160	195	235	270	340	420			
P			175	225	275	325	375	425	525	625			
Q			260	320	375	440	510	575	720	885			
R	175	175	375	425	525	525	625	730	830	1040			
S	265	265	485	540	655	655	755	900	1000	1250			
T	260	260	320	385	440	495	545	595	720	885			
U	160	160	185	185	185	185-230	230	230-240	240-270	240-270-310			
V	145	145	145	185	215	245	275	305	380	465			
Z	115	115	175	200	225	250	270	290	340	420			

Dimensions in mm

This datasheet might not show the complete range but only the models specialised for the application.

Sugar Processing

Screw Conveyors CX



2



Description ▼

CX trough-type Screw Conveyors and Feeders are suitable for all those applications where perfect cleanliness, contamination-free operation, weather and corrosion-resistance play an essential role. They are widely used in sugar processing plants.

Function ▼

CX stainless steel (aisi 304) screws are usually installed to distribute sugar to sieves, diameter range up to 600 mm (from 700 mm to 1,000 mm contact WAMGROUP®). These units can be equipped with different typology of spiral, including also ribbon flight.

Technical Features / Performance ▼

- ▶ 304 L / 316 L stainless steel
- ▶ Modular trough and screw sections
- ▶ Square or cylindrical WAM® standard inlet and outlet spouts welded on the trough orthogonally as to the conveyor axis
- ▶ Bolted modular trough cover complete with strip gasket
- ▶ End bearing assemblies with shaft, roller bearings and externally adjustable packing glands
- ▶ Intermediate hanger bearings complete with shaft and self-lubricating long-life slide bushes

Benefits ▼

- ✓ **No material residue thanks to perfectly smooth trough surface;**
- ✓ **Trough end flanges welded on high precision jigs;**
- ✓ **Trough-bolted end plates complete with laser-cut drillings to accommodate end bearing assemblies;**
- ✓ **Screws made up of modular helicoids flighting with constant or variable pitch continuously welded on both sides on high quality centre pipe;**
- ✓ **Screw sections connected through bolted or splined shaft couplings;**
- ✓ **Screws electronically balanced.**

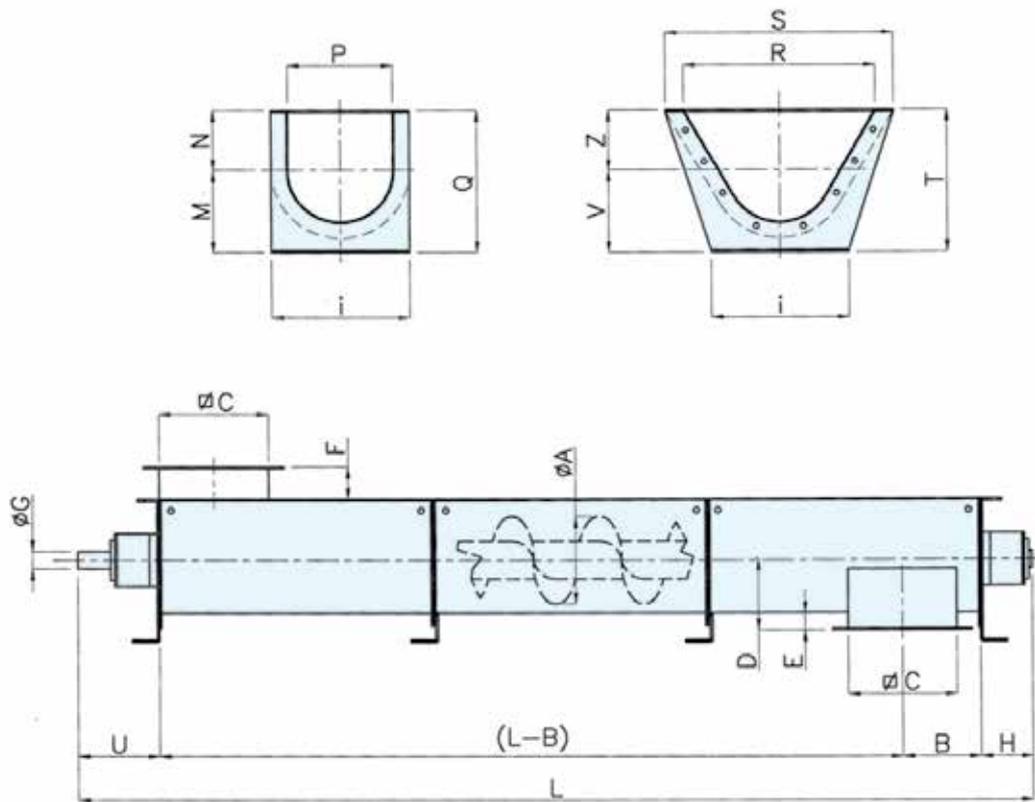


Sugar Processing

Screw Conveyors CX



Overall Dimensions ▼



ØA	100	120	150	200	250	300	350	400	500	600	700	800	1000
B	170	170	170	195	220	260	290	340	390	440	Please contact WAMGROUP®		
C	175	175	175	225	275	325	375	425	525	625			
D	130	130	130	165	195	225	225	285	340	395			
E	40	40	40	50	55	60	65	70	75	80			
F	60	60	60	60	60	60	60	80	80	80			
ØG	25	25	35	35	35	35-45	35-45	45	55-65	55-65-80			
H	115	115	125	125	125	125-145	145	145-155	155-165	155-165-180			
I	265	265	265	315	365	435	485	540	655	755			
L	Rounded up to 0.5 m												
M			145	185	215	245	275	305	380	465			
N			115	135	160	195	235	270	340	420			
P			175	225	275	325	375	425	525	625			
Q			260	320	375	440	510	575	720	885			
R	175	175	375	425	525	525	625	730	830	1040			
S	265	265	485	540	655	655	755	900	1000	1250			
T	260	260	320	385	440	495	545	595	720	885			
U	160	160	185	185	185	185-230	230	230-240	240-270	240-270-310			
V	145	145	145	185	215	245	275	305	380	465			
Z	115	115	175	200	225	250	270	290	340	420			

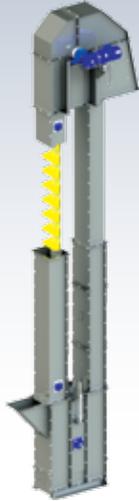
Dimensions in mm

This datasheet might not show the complete range but only the models specialised for the application.

Sugar Processing

Bucket Elevator EI

3



Description ▼

The EI - series Bucket Elevators for vertical conveying of dry refined sugar consist of a casing entirely manufactured in micro shot blasted Aisi 304. The machine consists of a head section with a white FDA rubber-coated pulley driven by a gear motor, a foot section with a squirrel cage pulley and a screw tensioning system for the belt and the intermediate sections. The material is conveyed by means of polyethylene HDPE FDA or Aisi 304 buckets which are fixed to a white FDA rubber belt. Shafts seals and silicone are FDA compliant. Bucket elevator is Atex II 3D T4 compliant.

Function ▼

EI - series Bucket Elevators are designed for vertical conveying of dry refined sugar with good flowing properties. EI - series have an elevation speed of 1.5 m/s.

Application ▼

EI - series Bucket Elevators for dry refined sugar conveying are mainly used after sugar production process for conveying dry refined sugar crystals to storage and / or packing areas.

Benefits ▼

- ✓ **Solid and robust design;**
- ✓ **Easy installation thanks to modular components;**
- ✓ **Suitable for explosive environments;**
- ✓ **Totally enclosed equipment, dust tight construction;**
- ✓ **Low maintenance and small footprint;**
- ✓ **FDA certificates for the main components.**

Sugar Processing

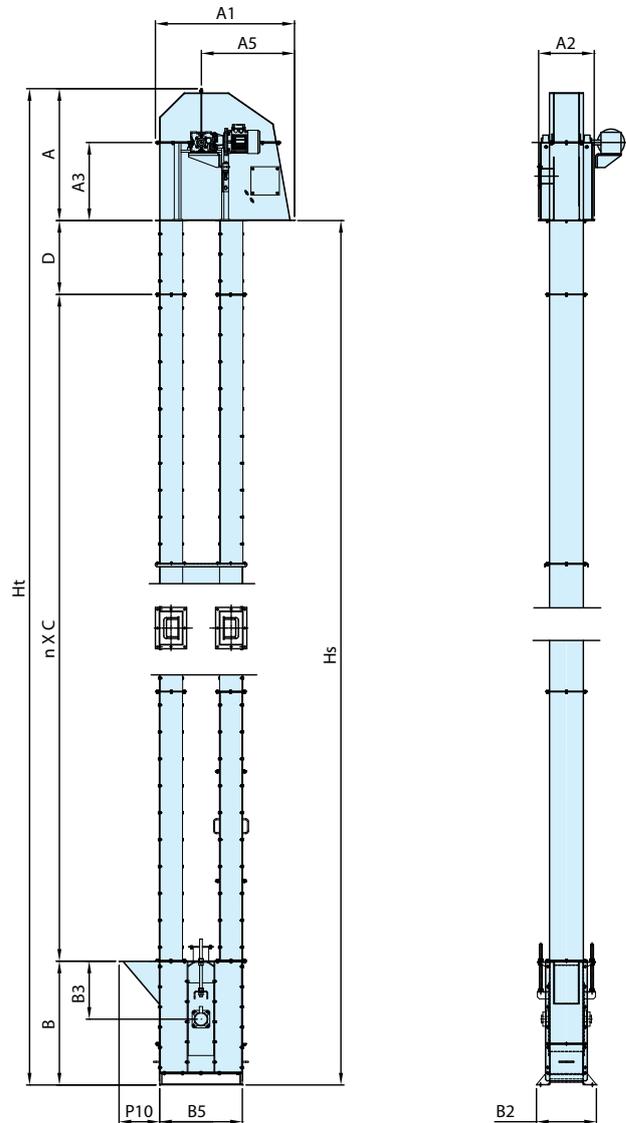
Bucket Elevator EI



Overall Dimensions ▼

Technical Features / Performance ▼

- ▶ ATEX category II 3D T4
- ▶ Intrinsic safety design thanks to double rotation and belt misalignment sensors and bearings temperature sensors
- ▶ Construction entirely made in SS 304
- ▶ Conveying capacity from 4 to 174 m³/h
- ▶ Multiple inspection hatches on head and foot sections for comfortable cleaning operations and easy maintenance
- ▶ All plastic and rubber parts FDA compliant
- ▶ Vent outlet for de-dusting system
- ▶ Replaceable anti wear shields on head and foot in Aisi 304 available in option



Overall Dimensions ▼

Type	m ³ /h	Hs (min÷max)	Trunking section	A	A1	A2	A3	A5	B	B2	B3	B5	P10	C	D	N
EI08	4	3÷45	145x145	765	822	345	460	548	753	310	370	484	273	2,000	500-1,500	Depends on Hs
EI09	8	3÷45	145x145	765	822	345	460	548	753	310	370	484	273	2,000	500-1,500	
EI11	13	3÷45	186x166	950	1028	390	580	687	923	384	430	610	329	2,000	500-1,500	
EI20	19	3÷45	236x200	1,172	1,224	440	700	813	1,104	432	510	754	410	2,000	500-1,500	
EI21	27	3÷45	236x200	1,172	1,224	440	700	813	1,104	432	510	754	410	2,000	500-1,500	
EI29	38	3÷45	300x250	1,276	1,422	620	740	961	1,320	490	680	836	481	2,000	500-1,500	
EI30	52	3÷45	300x250	1,276	1,422	620	740	961	1,320	490	680	836	481	2,000	500-1,500	
EI32	68	3÷45	340x280	1,497	1,632	700	900	1,095	1,437	586	710	986	537	2,000	500-1,500	
EI39	87	4÷45	430x340	1,730	1,896	810	1,020	1,299	1,670	700	860	1,110	598	2,000	500-1,500	
EI40	114	4÷45	430x340	1,730	1,896	810	1,020	1,299	1,670	700	860	1,110	598	2,000	500-1,500	
EI41	135	4÷45	525x340	1,835	1,980	962	1,095	1,330	1,806	782	960	1,230	650	2,000	500-1,500	
EI42	174	4÷45	525x340	1,835	1,980	962	1,095	1,330	1,806	782	960	1,230	650	2,000	500-1,500	

Dimensions in mm

This datasheet might not show the complete range but only the models specialised for the application.

Sugar Processing

VL Slide Valves

4



Description ▼

VL-type Slide Valves consist of a two-piece stainless steel frame, which is partly coated with WAM®'s unique SINT® engineering polymer composite, and a sliding blade manufactured either from the same material or from carbon or stainless steel. The use of SINT®AL FDA-approved engineering polymer composites considerably increases resistance to abrasion compared to traditional valves.

Function ▼

VL Slides Valves are used where flow of a bulk solid caused by gravity or transport has to be intercepted. Valves may be fitted to hopper or silo outlets, to the inlets and outlets of mechanical conveyors and to the inlet of telescopic loading spouts.



Application ▼

The special geometry of the VL Slide Valves and the different options of blade design enable their application in all departments of a Sugar Processing Plant where interception of gravity-fed or pneumatically conveyed dry materials is required. Typical applications are storage, conveying and processing lines and also product distribution to sieves.

They are fitted beneath hoppers, bins, silos, screw or other type conveyors.

Due to their special design and to the engineering materials used, they represent a particularly cost-effective yet most efficient solution.

Benefits ▼

- ✓ No contamination due to metal steel blade and valve frame coated with engineering polymer;
- ✓ Dust and granule-proof thanks to components geometry;
- ✓ Used with different materials in the same configuration;
- ✓ Safety for OEM and user thanks to ATEX certification zone 22;
- ✓ Easy integration into the process thanks to its light weight and easy handling;
- ✓ Modular design and easy maintenance thanks to small numbers of components;
- ✓ High flexibility and time-saving maintenance thanks to interchangeable components;
- ✓ Better performance thanks to friction-free contact design (actuator torque is not wasted in order to win friction resistance).

Sugar Processing

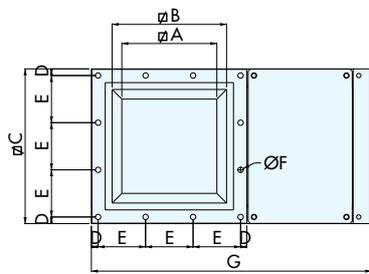
VL Slide Valves



Technical Features / Performance ▼

- ▶ Square (VLQ) or round (VLC) inlet from 150 to 400mm (6 to 16 in)
- ▶ Rectangular inlet for size 300mm (12 in)
- ▶ Dust and granular-proof and max. temperature of 80°C (176 F°)
- ▶ Blade and frame in stainless steel (or coated in SINT®AL FDA-approved engineering polymer)
- ▶ Absence of residue points
- ▶ Friction-free contact design
- ▶ Small number of components
- ▶ Easy part replacement
- ▶ Safe sealing with no additional measures due to the all-around dustproof seal lips incorporated in the polymer coating

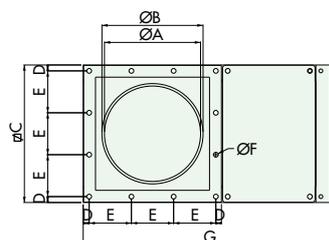
Overall Dimensions ▼



VLQ



Type	A	B	C	D	E	N°E	Ø F	Bolts	G	H	kg
VLQ0150..	120	175	261	15.5	115.0	2	12.5	M10	455	113	14
VLQ0200..	170	225	311	15.5	93.3	3	12.5	M10	555	113	18
VLQ0250..	220	275	361	15.5	110.0	3	12.5	M10	650	113	22
VLQ0300..	270	325	431	23.0	128.3	3	12.5	M10	765	113	30
VLQ0350..	320	375	481	18.0	89.0	5	12.5	M10	900	125	40
VLQ0400..	370	425	531	15.5	100.0	5	12.5	M10	1,000	125	46



VLC



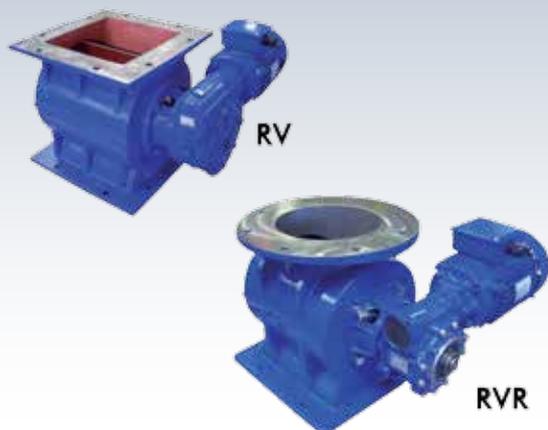
Type	A	Ø B	Ø C	D	E	N°E	Ø F	Screw	G	H	kg
VLC0150..	150	165	261	15.5	115.0	2	12.5	M10	455	113	14
VLC0200..	200	215	311	15.5	93.3	3	12.5	M10	555	113	18
VLC0250..	250	265	361	15.5	110.0	3	12.5	M10	650	113	22
VLC0300..	300	315	431	23.0	128.3	3	12.5	M10	765	113	30
VLC0350..	350	365	481	18.0	89.0	5	12.5	M10	900	125	40
VLC0400..	400	415	531	15.5	100.0	5	12.5	M10	1,000	125	46

This datasheet might not show the complete range but only the models specialised for the application.

Sugar Processing

RV-RVR Drop-Through Rotary Valves

5



Description ▼

RV Drop-Through Rotary Valves consist of a tubular cast iron or stainless steel casing, a horizontally mounted rotor with a certain number of V-shaped cross section compartments, a drive unit and a casing cover opposite the drive end.

For sugar processing application are suggested the following specifics:

- stainless steel 304L/316 casing version
- max suggested speed 20 rpm
- air purged sealing

Function ▼

RV Rotary Valves have been developed for maximum versatility in application. They are suitable for controlled discharging and feeding of powdery or granular materials from silos, hoppers, pneumatic conveying systems, or cyclones.

Application ▼

RV-RVR Rotary valves are fitted at the outlet of silos, bins or hoppers for feeding the discharged material with high accuracy into the downstream process. In negative pressure applications they are fitted on screw conveyor outlets to prevent suction.



Benefits ▼

- ✓ No product contamination due to 304/316 stainless steel design and air-purged seals;
- ✓ Zone 22 ATEX-certified;
- ✓ Square or round flanges ensure system compatibility and match with WAM® flanges;
- ✓ Cast iron or 304/316 SS, nickel coating, Teflon® coating, as well as various rotor versions available to ensure the most appropriate configuration for application requirements;
- ✓ Quick integration into the process thanks to lightweight easy handling;
- ✓ Modular design and easy maintenance thanks to small numbers of components.

Sugar Processing

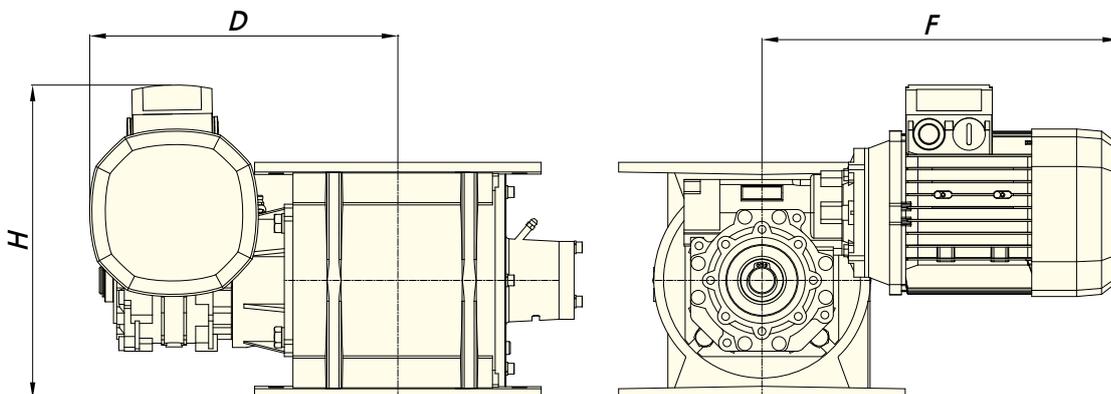
RV-RVR Drop-Through Rotary Valves



Technical Features / Performance ▼

- ▶ Capacity: 2.2 to 19.5 litres per revolution (0.08 to 0.7 cu ft per revolution)
- ▶ Working temperature: - 20° C to 150° C (- 4° F to 300° F)
- ▶ Maximum differential pressure: 0.3 bar (4.4 PSI)
- ▶ Cast iron or 304/316 SS design
- ▶ Nickel coating available
- ▶ Rotor with bevelled blades available
- ▶ Easy access to internal mechanical parts
- ▶ Sturdy compact structure
- ▶ Small footprint
- ▶ Drive unit mounted directly on shaft without further bearing assembly or coupling
- ▶ Square or round flanges and inlet spouts
- ▶ Compatibility with WAM® standard flanges on inlet and outlet
- ▶ Different materials and surface treatments available depending on material handled

Overall Dimensions ▼



TYPE	D*	F*	H*		kW
			RV	RVR	
RV/RVR 02 30 rpm	294	350	318	333	0.5
RV/RVR 02 20 rpm			348	373	0.75
RV/RVR 05 30 rpm	364				394
RV/RVR 05 20 rpm			392	419	
RV/RVR 10 30 rpm	425	472			0.75
RV/RVR 10 20 rpm			1.5	1.1	
RV/RVR 20 30 rpm					
RV/RVR 20 20 rpm					

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