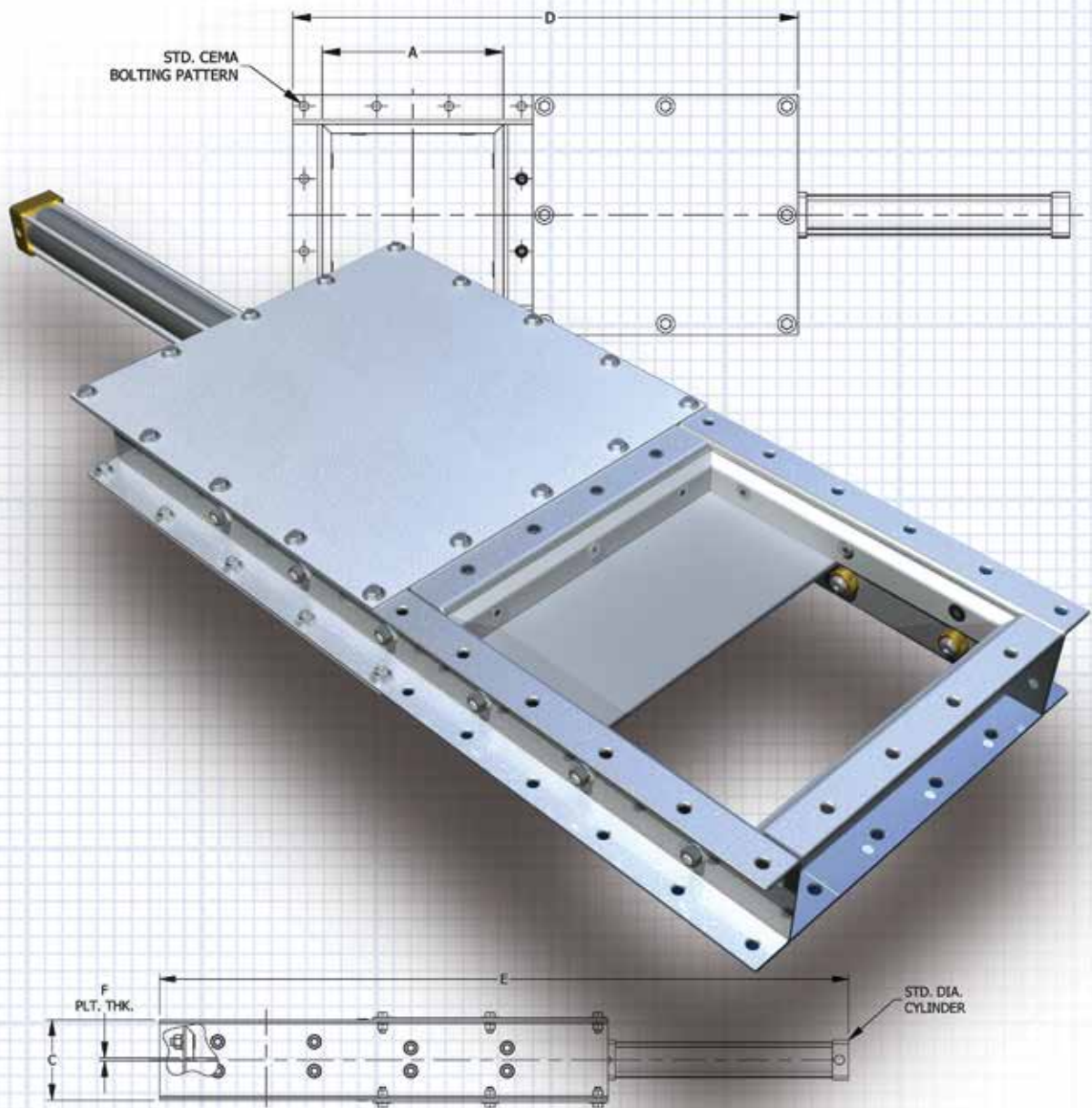




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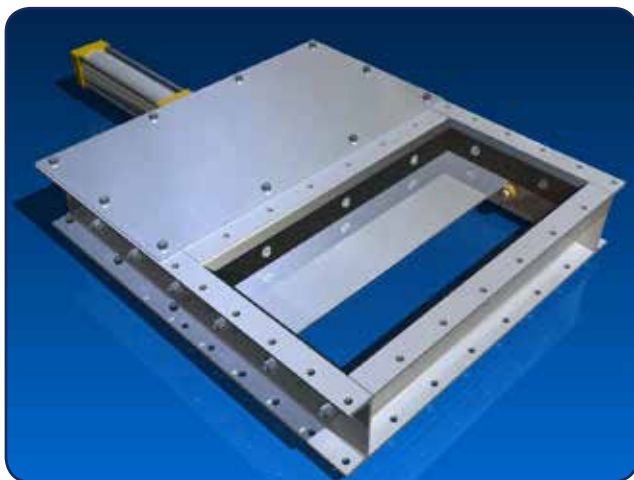
ENGINEERING GUIDE

Pneumatic Slide Gates

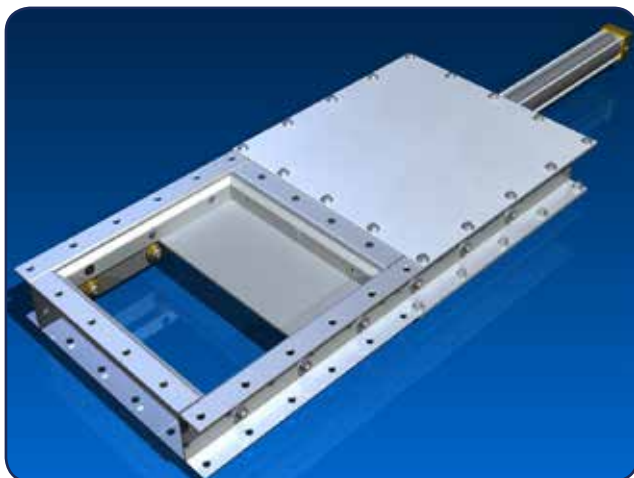


Release Date 9.1.15

KWS Pneumatic Slide Gates



KWS pneumatic slide gates are used in a wide variety of bulk material handling applications. They can be used on the bottom of screw conveyors at intermediate discharge locations to divert product to another location, below silos to stop the flow of product to downstream equipment or even as emergency shut-off gates to stop material surges.



KWS's pneumatic slide gates use a pneumatic or air operated cylinder to actuate the slide plate open and closed. Typically, plant air pressure (approximately 80 psi) is all that is required to power this multi-use slide gate. The slide plate is guided by bronze-bushed rollers on the bottom and 1/2" thick UHMW slide plate retainers on the top. The rollers require no grease and are adjustable in order to provide

years of maintenance free service. Replacement parts are low cost and stock items at KWS and available for overnight delivery.

FEATURES

All Welded Construction – Slide gate frames are designed and constructed as one weldment to provide maximum rigidity for heavy industrial applications.

Heavy Duty Slide Plate – Slide plates are made from 3/16" up to 1/2" thick solid carbon or stainless steel to withstand product pressure and head load. The corners of the slide plate are beveled to prevent binding when opening and closing the gate. The pneumatic cylinder is directly attached to the slide plate for a compact and economical design.



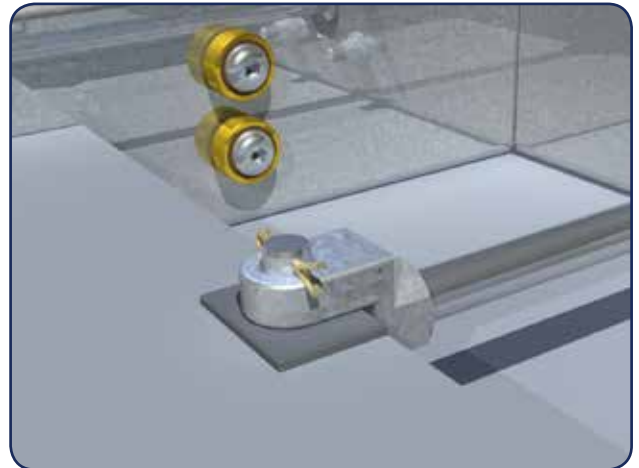
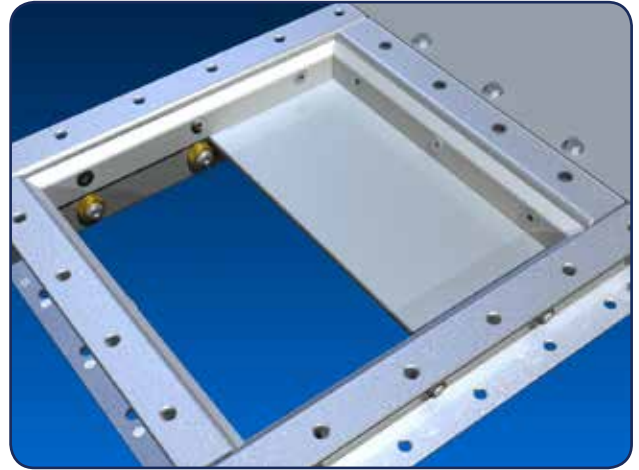
Low Friction Rollers – Stainless steel rollers with graphite-impregnated bronze bushings are provided for smooth operation of the slide gate. The rollers are totally maintenance-free and self-lubricating.

UHMW Retainers – ½-inch thick Ultra High Molecular Weight Polyethylene (UHMW) slide plate retainers are held in place with countersunk bolts on each side. The countersunk bolts are used to avoid obstructing material flow. The top of the UHMW retainers are beveled to divert product flow around the edges of the slide plate and protect the rollers below. UHMW is used because of its durability and high release properties.

BENEFITS

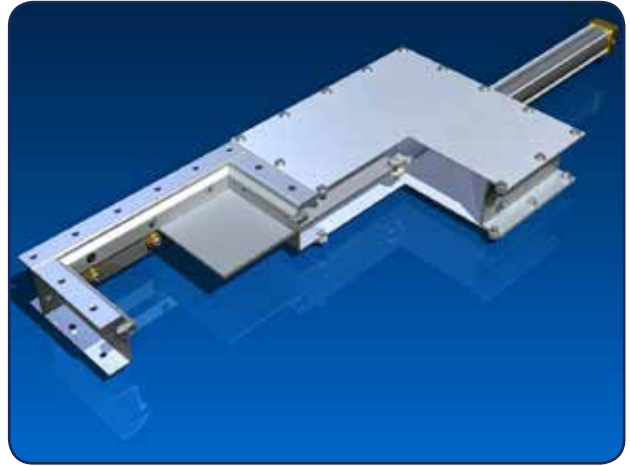
Compact Design – The KWS pneumatic slide gate's compact design allows it to fit in almost any space. The height is only 5" and length and width are minimized using 3D CAD design technology. The compact, modular design allows for the integration of solenoids, filter/regulators, and position switches.

Versatile and Rugged – Custom designed pneumatic slide gates can be built to fit any application. The slide gate frame and slide plate can be fabricated from a wide variety of materials and thicknesses. Inlet and discharge transitions can be adapted to fit any opening configuration. Large diameter bore cylinders can be utilized for head loads and tough applications. This versatility allows the design to be custom tailored to fit any application and/or design conditions.



DESIGN STANDARDS

KWS standard pneumatic slide gate cylinders operate most effectively when supplied with 80 psi of clean and dry air. The standard design slide gates are not designed to be operated under a head load; however, hopper/silo discharge slide gates can be engineered to meet your specific application. Please contact the KWS sales and engineering staff with any of your unique slide gate applications today. We can provide a solution for you!

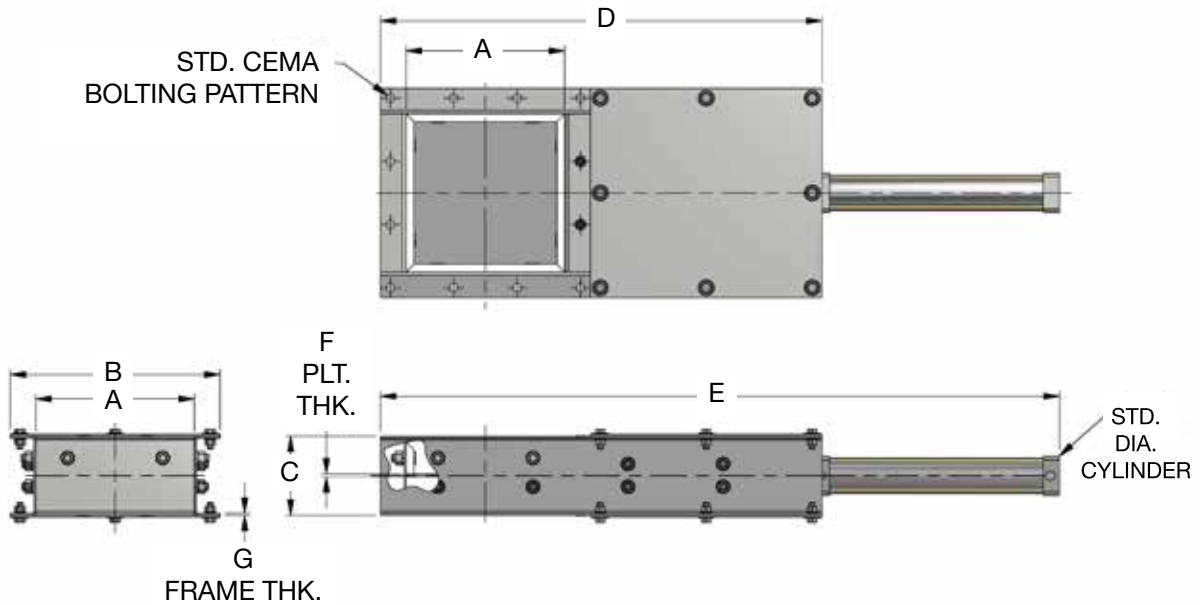


KWS Pneumatic Slide Gate Standard Construction

Gate Size	Inside Square Dimension	Body Thickness	Blade Thickness	Cylinder Bore
6"	7"	10 GA	3/16"	2"
9"	10"	10 GA	3/16"	2"
10"	11"	10 GA	3/16"	2"
12"	13"	3/16"	1/4"	2"
14"	15"	3/16"	1/4"	2"
16"	17"	3/16"	3/8"	2 1/2"
18"	19"	3/16"	3/8"	2 1/2"
20"	21"	3/16"	3/8"	2 1/2"
24"	25"	3/16"	3/8"	2 1/2"
30"	31"	1/4"	3/8"	4"
36"	37"	1/4"	1/2"	4"



DIMENSIONAL STANDARDS



DIMENSION CHART (IN)

CONVEYOR DIAMETER	PART NUMBER	A	B	C	D	E	F	G
6	PG610F	7"	10"	5"	1'-9 3/8"	2'-4 1/2"	3/16"	10 GA.
9	PG910F	10"	1'-1 1/4"	5"	2'-3 7/8"	3'-6 7/8"	3/16"	10 GA.
10	PG1010F	11"	1'-2 1/4"	5"	2'-4"	3'-7 7/8"	3/16"	10 GA.
12	PG12316F	13"	1'-5 1/4"	5"	2'-8 7/8"	4'-1 1/2"	1/4"	3/16"
14	PG14316F	15"	1'-7 1/4"	5"	3'-1 7/8"	4'-8 9/16"	1/4"	3/16"
16	PG16316F	17"	1'-9 1/4"	5"	3'-7 7/8"	5'-4 1/2"	3/8"	3/16"
18	PG18316F	19"	2'-0 1/4"	5"	3'-9 5/8"	5'-7 7/8"	3/8"	3/16"
20	PG20316F	21"	2'-2 1/4"	5"	4'-2 11/16"	6'-5"	3/8"	3/16"
24	PG24316F	25"	2'-6 1/4"	5"	4'-11 3/4"	7'-4"	3/8"	3/16"
30	PG30250F	31"	3'-1"	6"	6'-0 1/8"	8'-11"	3/8"	1/4"
36	PG36250F	37"	3'-7"	6"	7'-0 1/8"	10'-7"	1/2"	1/4"



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