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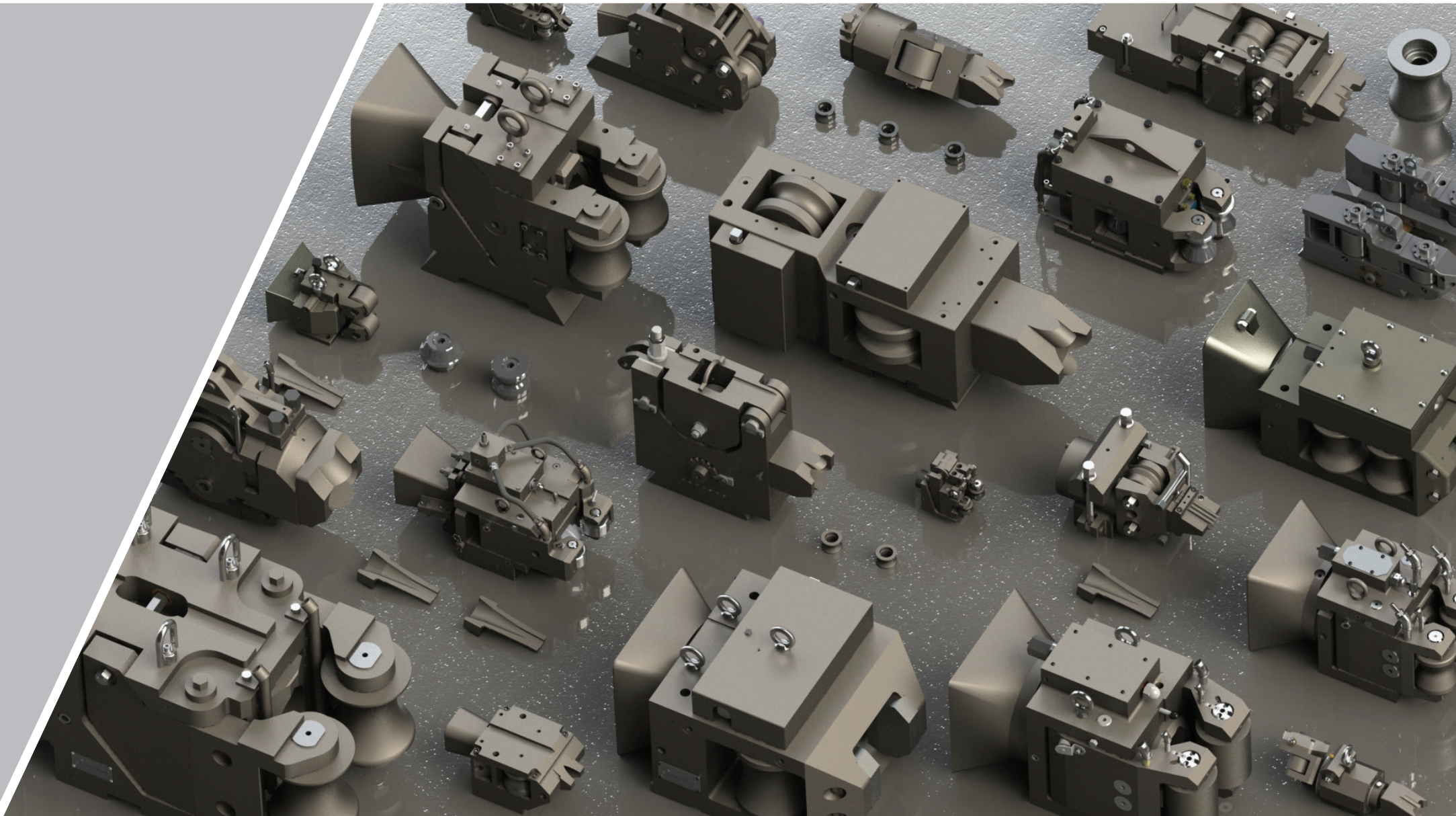
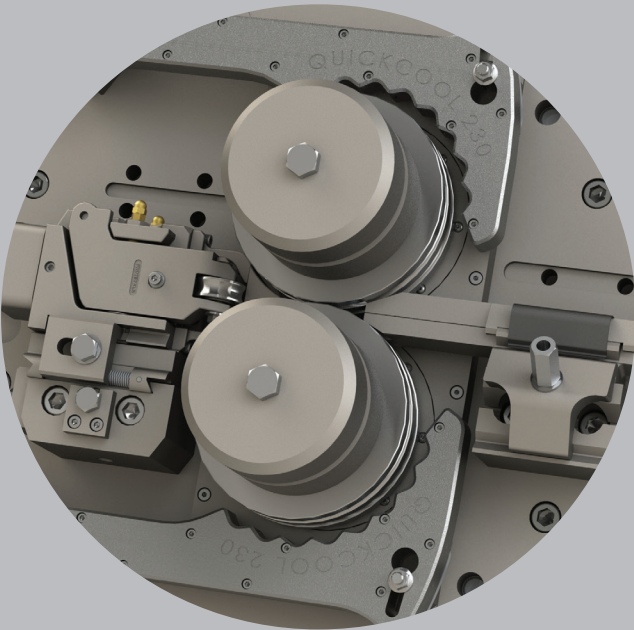
## **GUIDING SOLUTIONS FOR ROLLING MILLS**

AN INNOVATIVE PORTFOLIO

2018 CATALOG



# CONTENT

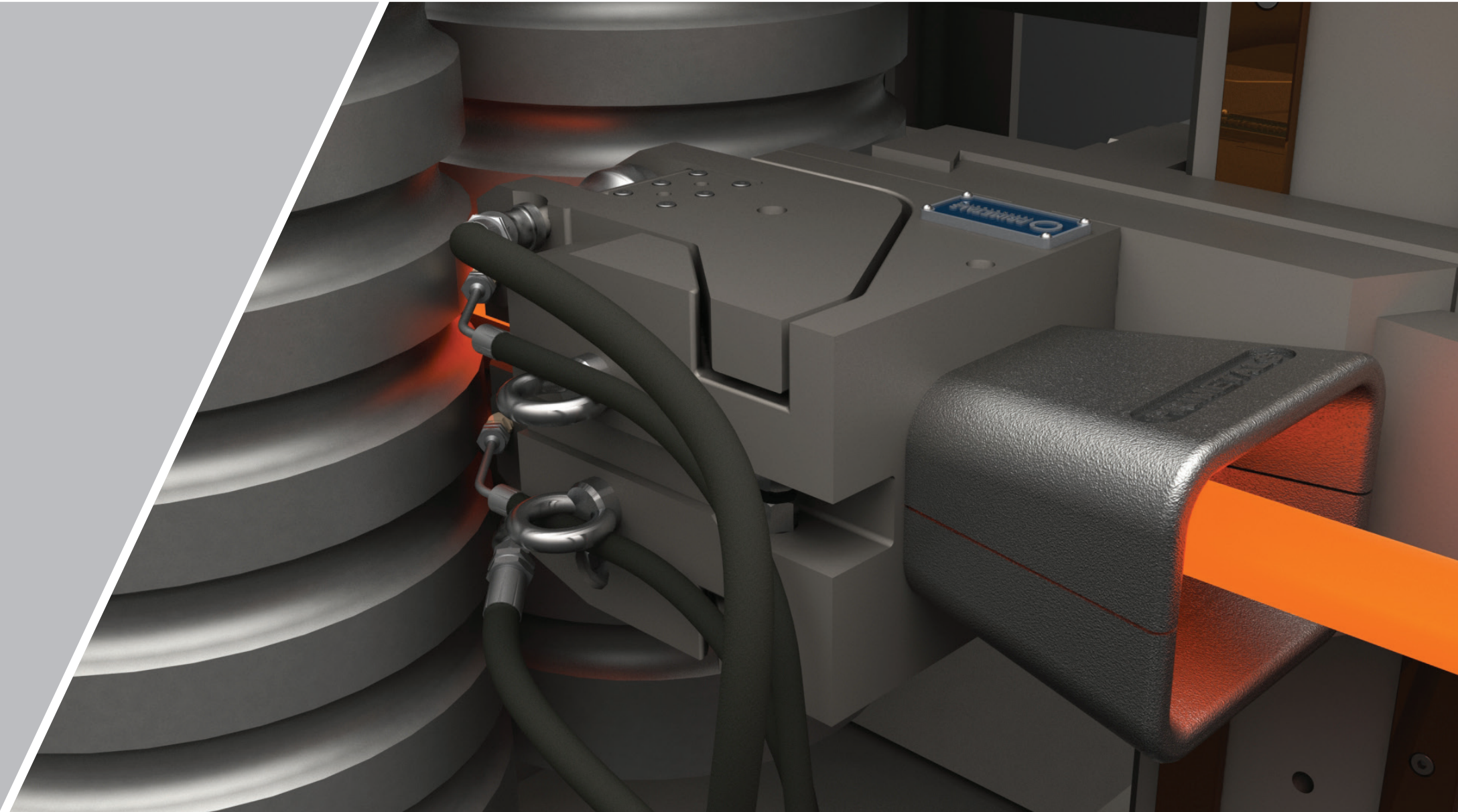
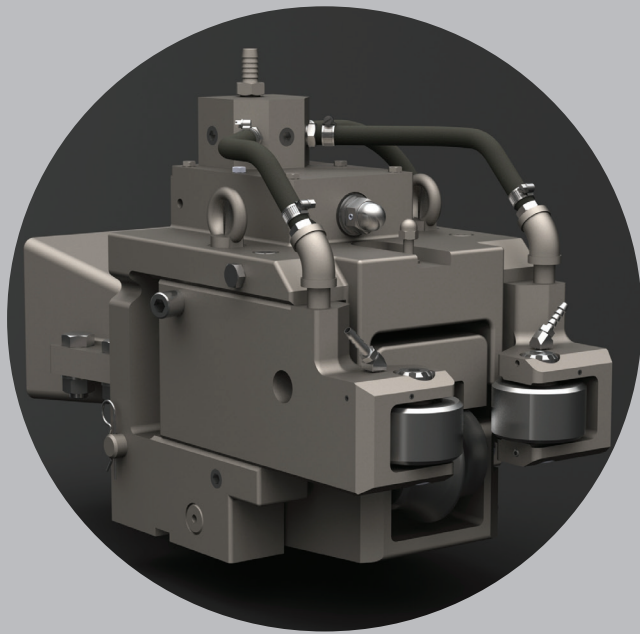


10 - 43	Roller entry guides	66 - 81	Miscellaneous equipment
44 - 53	Twist delivery guides	82 - 83	Innovative technologies
54 - 59	Slitting guides	84	Guide selection form
60 - 65	Static guides		



# ROD, BAR, AND SECTION MILL GUIDES AND GUIDE PRODUCTS

SOLUTIONS FOR ANY  
APPLICATION



Primetals Technologies not only offers an extensive line of standard guiding equipment, but has the experience and expertise to design and build custom solutions for any application. We welcome and thrive on the opportunity to develop custom solutions to solve the most challenging and demanding guiding situations.










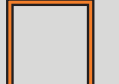

Primetals Technologies has combined the experience of Ashlow and Morgan Construction Company to establish one of the world's foremost designers and manufacturers of guides and ancillary equipment for all long rolling mill applications.

Whether your mill produces high-speed wire rod, bars, merchant products, or special sections, Primetals Technologies guides are robust, simple to set, easy to maintain and utilize modern materials and manufacturing techniques for maximum service life.

At Primetals Technologies, teams of experienced engineers are available to adapt our large library of designs to suit any rolling application or mill circumstance that causes particular guiding problems. Working closely with our long rolling mill equipment colleagues we can develop solutions to all long rolling processes and equipment making your mill run smoothly.

All enquiries are welcome and will be dealt with promptly and professionally. After sales service is coordinated with our global spares and services organizations ensuring rapid response and service in all regions of the world. Contact us today to tap into our vast knowledge base so we can assist to maximize your mill performance.

PRODUCT GUIDE

Product Type														
Guide Type	Guide Series	Location	Page No.											
2-Roller entry	ERG	All conventional size mill stands	10	●	●	●	●	●	●					
	RE(FSA)	Roughing and intermediate mill stands	12	●	●	●	●	●	●					
	RE F/(HD)	All conventional size mill stands	14	●	●	●	●	●	●					
	2EL/2EM	Roughing and intermediate mill stands	16	●	●	●	●	●	●					
	SSA	Bar sizing mill stands	18	●	●	●	●	●	●					
	RE/WRE	Intermediate and finishing mill stands	20	●	●	●	●	●	●					
	ANR / APR	Roughing mill stands	22	●	●	●	●	●	●					
2-Roller entry (High-speed)	USX	Rod finishing mill stands	24	●	●	●	●	●	●					
	AX	Rod finishing mill stands	26	●	●	●	●	●	●					
3-Roller entry	EG/EH/EE	Intermediate and finishing mill stands	28									●	●	
	AR/FR	Intermediate and finishing mill stands	30								●	●	●	
	KSF	Three roll mill stands	32	●										
4-Roller entry	4EL	Intermediate and finishing mill stands	34	●	●	●	●	●	●					
	4(E/D)	Intermediate and finishing mill stands	36	●	●	●	●	●	●	●	●			
	ASR	Intermediate and finishing mill stands	38	●	●	●	●	●	●	●	●			
	4(FL/FJ)	Intermediate and finishing mill stands	40								●	●		
	4FC	Roughing and intermediate mill stands	42								●			
2-Roller twist delivery	TER	All conventional size mill stands	44		●	●	●	●						
	RS(C/D)	All conventional size mill stands	46		●	●	●	●						
	RS(D)	Intermediate and finishing mill stands	48		●	●	●	●						
	RS(N)	Intermediate and finishing mill stands	50		●	●	●	●						
	CSW/CSR	Intermediate and finishing mill stands	52		●	●	●	●						
Slitting	SLF/SLFW	Intermediate and finishing mill stands	54							●				
	SL1J / SL1X	Intermediate and finishing mill stands	56							●				
	POST SLIT	Finishing mill stands	58	●	●									
Static	LOW SPEED	All conventional size mill stands	60	●	●	●	●	●	●	●	●	●	●	●
	AS / BS / CS	Roughing and intermediate mill stands	62									●	●	●
	EPDG/FPDG	All conventional size mill stands	63					●			●			
	HIGH SPEED	Rod finishing mill stands	64	●	●									
Miscellaneous	STAB	Intermediate and finishing mill stands	66		●	●	●	●		●	●			
	PSX	High-speed wire rod mills	67	●										
	SG	Finishing mill stands	68	●							●			
	AF	Rod finishing mill stands	69	●	●									
	RG	Reversing mill stands	69	●	●	●	●	●	●		●	●	●	●



# ABOUT 1,800 SERVICE SPECIALISTS AROUND THE WORLD ARE- ALWAYS CLOSE TO OUR CUSTOMERS

## GLOBAL PRESENCE FOR LOCAL SUPPORT

Primetals Technologies customers can rely on a unique service network throughout the world. Our service and expertise are at your disposal from more than 25 service locations worldwide. Benefit from comprehensive support, close to your facilities.

**United States:** Benton Harbor, Blytheville, Columbus, Decatur, Huger, Ghent, New London, Warren, Cortland, Canonsburg, Sutton; **Mexico:** Monterrey; **Brazil:** Santa Cruz, São Paulo, Volta Redonda; **United Kingdom:** Sheffield, Scunthorpe, Stockton; **Germany:** Legelshurst; **Austria:** Linz; **China:** Beijing, Minhang; **India:** Kolkata, Mumbai; **Japan:** Hiroshima; **Russia:** Moscow

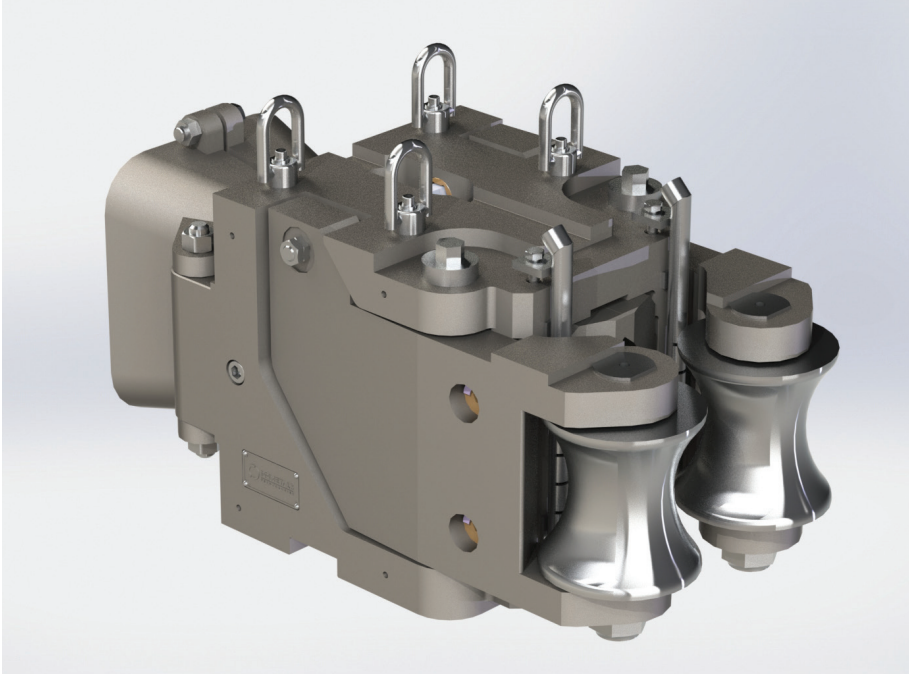
## MAIN BENEFITS

- Reduced plant down time
- Increased plant availability and productivity
- Reduced operational and maintenance costs
- Availability of quality-proven spares
- Efficient logistics for just-in-time distribution of spare and wear parts, and components
- Primetals Technologies leadership in technology and service



2-ROLLER ENTRY GUIDES  
SERIES ERG

FOR ALL CONVENTIONAL SIZE MILL STANDS



PRODUCT FEATURES

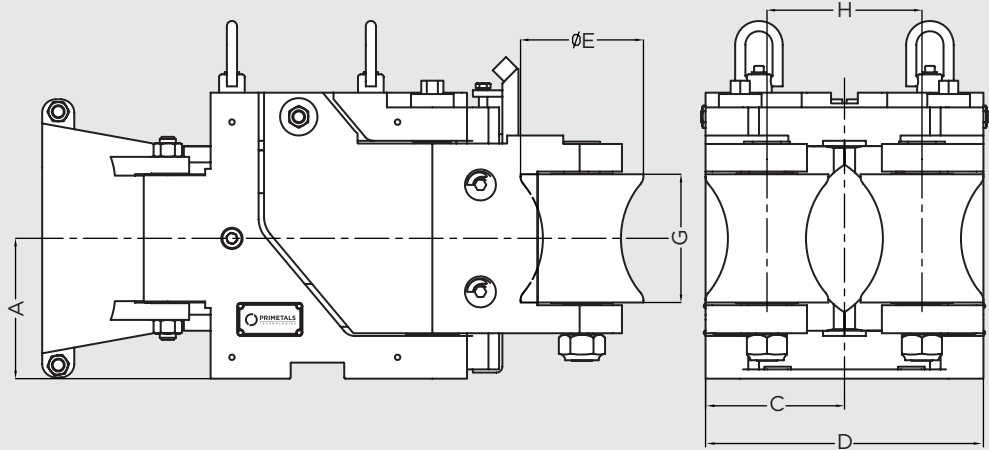
- Individual water cooling for rollers
- Direct air/oil or grease lubrication
- Single point symmetrical roller adjustment
- Variable entry bellmouth sizes
- Height adjustable rollers on ERG30 through ERG70 guides
- Separate internal insert and bellmouth design
- Available direct-mount stabilizer guide (See page 66)

PRODUCT DATA

Maximum Recommended Size (mm)							
Guide Type							
ERG30	A	16	32	32	16	32	16
	B	-	16	16	-	9	-
ERG40	A	22	42	42	22	42	22
	B	-	22	22	-	13	-
ERG50	A	31	53	53	31	53	31
	B	-	31	31	-	14	-
ERG70	A	43	74	74	43	74	43
	B	-	43	43	-	26	-
ERG90	A	56	92	92	56	95	56
	B	-	56	56	-	29	-
ERG120	A	77	126	126	77	126	77
	B	-	76	76	-	40	-
ERG150	A	90	156	156	90	156	90
	B	-	90	90	-	42	-
ERG180	A	116	180	180	116	180	116
	B	-	116	116	-	44	-
ERG210	A	134	222	222	134	220	134
	B	-	134	134	-	46	-
ERG240	A	156	255	255	156	255	156
	B	-	156	156	-	65	-
ERG280	A	215	295	295	215	290	215
	B	-	200	200	-	70	-

SERIES ERG

DESIGN DATA

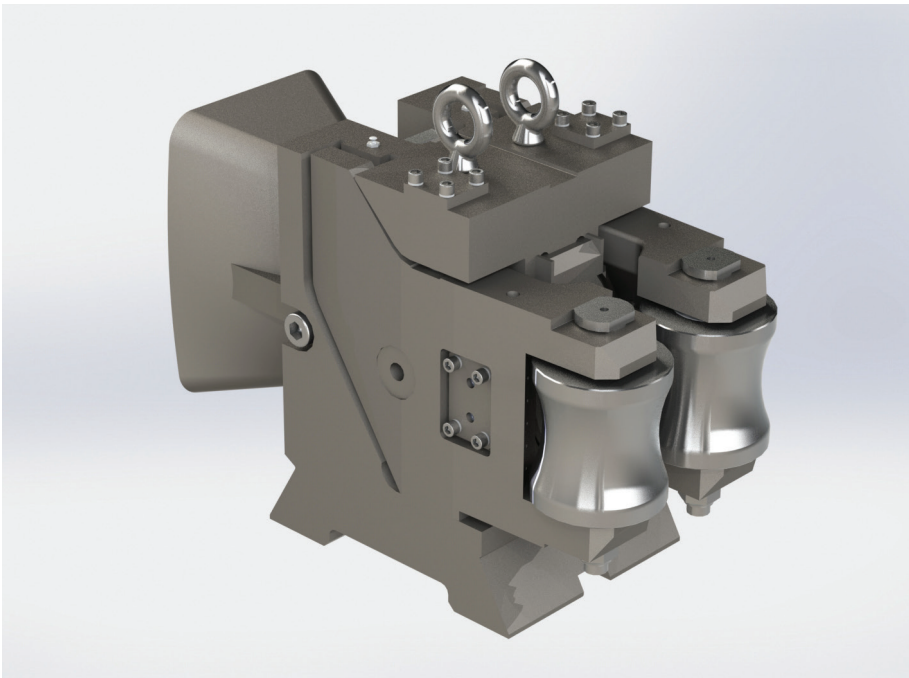


Dimension (mm)	A	C	D	ØE	G	H		Weight (kg)
Guide Type				max		max	min	
ERG30	55	50	100	56	30	65	51	10
ERG40	65	65	130	65	40	73	62	18
ERG50	80	80	160	70	50	80	75	30
ERG70	100	93	185	82	70	100	85	45
ERG90	115	110	220	100	90	125	100	68
ERG120	140	140	280	120	120	148	120	114
ERG150	180	155	320	140	150	190	160	215
ERG180	215	190	380	180	180	228	190	368
ERG210	240	220	440	200	210	265	216	486
ERG240	265	260	520	224	240	318	242	714
ERG280	330	320	640	250	280	380	288	1350



# 2-ROLLER ENTRY GUIDES SERIES RE(FSA)

FOR ROUGHING AND INTERMEDIATE MILL STANDS



### PRODUCT FEATURES

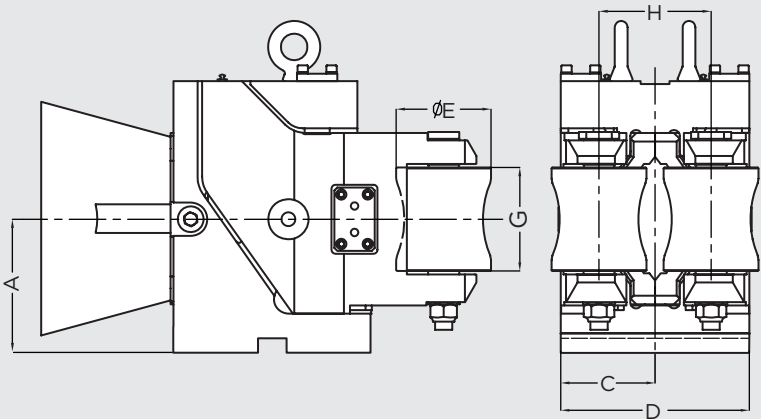
- Individual water cooling for rollers
- Direct air/oil or grease lubrication
- Single point symmetrical roller adjustment
- Variable entry bellmouth sizes

### PRODUCT DATA

Maximum Recommended Size (mm)							
Guide Type							
RE-115FSA	A	74	120	130	55	115	74
	B	-	74	72	-	6	-
RE-150FSA	A	92	150	170	75	150	92
	B	-	90	96	-	4	-
RE-180FSA	A	120	180	180	85	180	120
	B	-	100	100	-	5	-
RE-210FSA	A	135	200	210	100	210	135
	B	-	126	140	-	5	-

# SERIES RE(FSA)

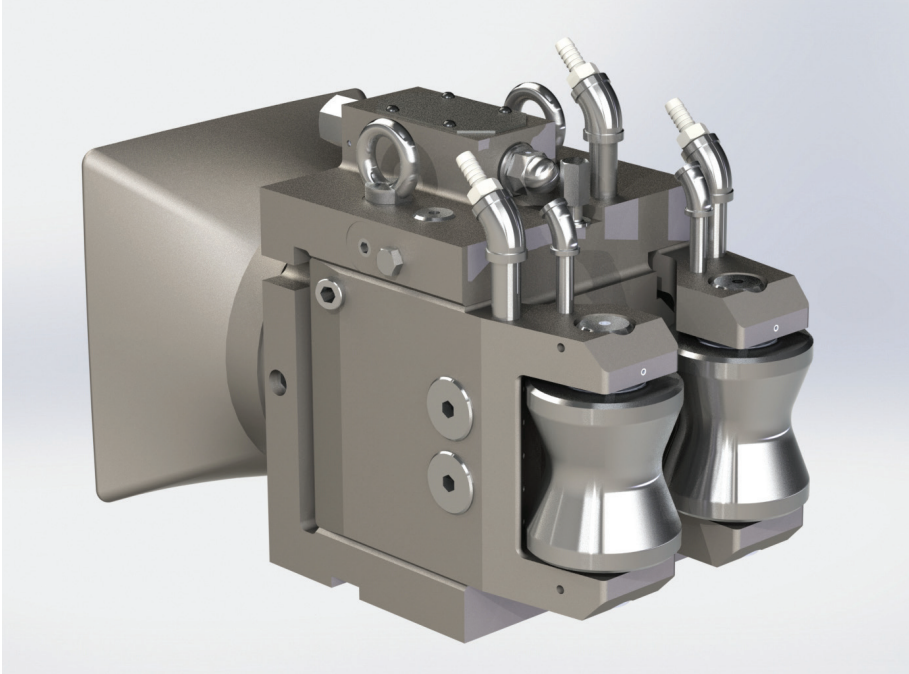
### DESIGN DATA



Dimension (mm)	A	C	D	ØE	G	H		Weight (kg)
Guide Type				max		max	min	
RE-115FSA	135	136	272	105	115	148	128	151
RE-150FSA	170	140	280	125	150	160	132	210
RE-180FSA	210	164	328	165	180	224	160	320
RE-210FSA	250	195	390	210	210	240	190	425

2-ROLLER ENTRY GUIDES  
SERIES RE F/(HD)

FOR ALL CONVENTIONAL SIZE MILL STANDS



PRODUCT FEATURES

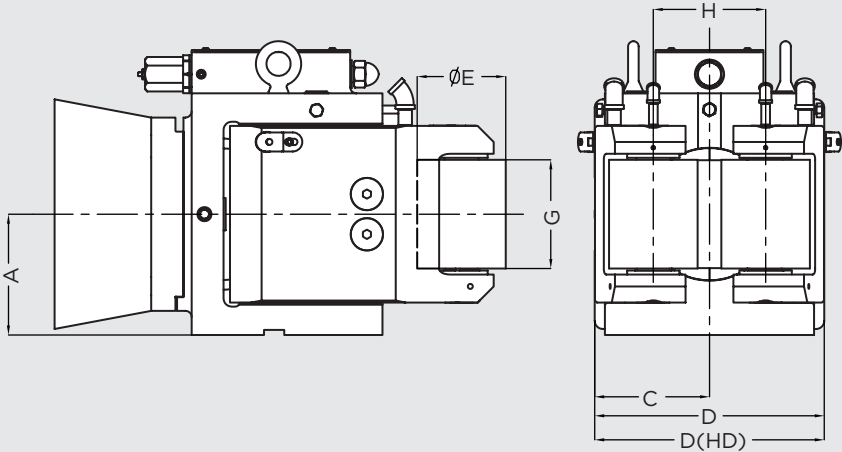
- Individual water cooling for rollers and statics
- Direct air/oil or grease lubrication
- Single point symmetrical roller adjustment
- Variable entry bellmouth sizes
- Adjustable roller parting online
- HD version for extra heavy-duty applications

PRODUCT DATA

Maximum Recommended size							
Guide type							
RE2F	A	16	25	25	15	20	14
	B	-	16	20	-	10	-
RE3F	A	25	35	35	22	34	20
	B	-	25	28	-	14	-
RE4F	A	38	60	60	32	54	32
	B	-	38	48	-	24	-
RE5F (HD)	A	54	80	80	42	70	46
	B	-	54	64	-	30	-
RE57 DKF	A	56	94	94	56	95	56
	B	-	56	56	-	28	-
RE7F (HD)	A	76	120	120	66	110	66
	B	-	74	80	-	40	-
RE13F (HD)	A	108	160	160	94	140	94
	B	-	105	120	-	60	-
RE14F (HD)	A	115	190	190	108	170	100
	B	-	115	130	-	64	-
RE15F (HD)	A	140	220	220	130	180	122
	B	-	140	150	-	100	-
RE17F	A	200	240	240	170	240	170
	B	-	185	195	-	115	-
RE19F	A	240	280	280	200	280	200
	B	-	210	220	-	135	-

SERIES RE F/(HD)

DESIGN DATA



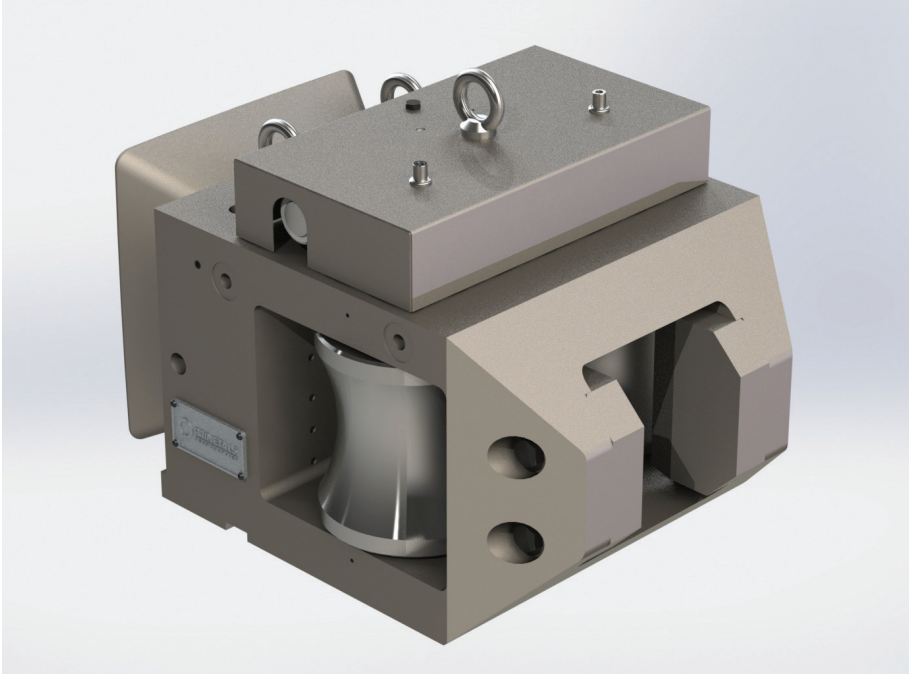
Dimension (mm)	A	C	D	D (HD)	ØE		G	H		Weight (kg)
Guide Type					max	min		max	min	
RE2F	57	48	96	-	58	45	25.4	62	48	13
RE3F	60	60	120	-	60	52	35	68	52	23
RE4F	80	80	160	-	70	58	60	90	60	42
RE5F (HD)	111	82.5	165	185	92	65	92	124	78	95
RE57 DKF	152	103.5	207	-	92	65	92	159	78	85
RE7F (HD)	152	123.5	247	267	113	80	127	159	102	182
RE13F (HD)	190	171.5	343	363	165	111	171	216	140	400
RE14F (HD)	225	190	380	400	190	120	200	254	170	530
RE15F (HD)	241	219	438	458	210	150	228	292	181	600
RE17F	259.5	265	530	-	200	170	240	330	260	870
RE19	285	312	624	-	230	200	280	400	330	1167



# 2-ROLLER ENTRY GUIDES

## SERIES 2EL/2EM

FOR ROUGHING AND INTERMEDIATE MILL STANDS



### PRODUCT FEATURES

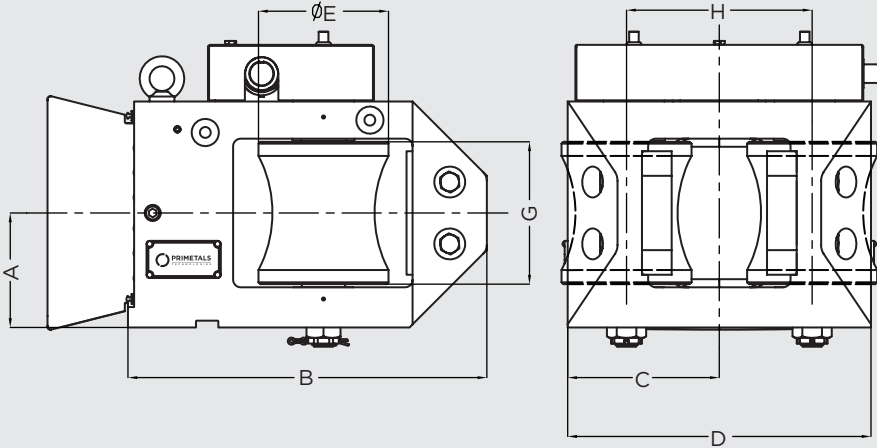
- Individual water cooling for rollers and statics
- Direct air/oil or grease lubrication
- Single point symmetrical roller adjustment
- Variable entry bellmouth sizes
- Replaceable nose piece

### PRODUCT DATA

Maximum Recommended Size (mm)							
Guide Type							
2E5L	A	54	80	80	42	70	46
	B	-	54	64	-	30	-
2E7L	A	76	120	120	50	110	60
	B	-	74	78	-	40	-
2E10L	A	90	140	140	60	125	76
	B	-	85	95	-	50	-
2E13L	A	105	160	160	84	140	96
	B	-	105	120	-	60	-
2E15L	A	150	200	200	120	180	120
	B	-	130	130	-	100	-
2E17L	A	180	300	300	160	240	150
	B	-	180	180	-	120	-
2E7M	A	90	120	120	66	110	72
	B	-	94	98	-	56	-
2E10M	A	105	140	140	76	125	84
	B	-	95	105	-	66	-
2E13M	A	140	160	160	115	140	112
	B	-	125	140	-	90	-
2E15M	A	180	200	200	150	180	155
	B	-	170	170	-	140	-
2E17M	A	260	300	300	205	240	208
	B	-	270	270	-	140	-
2E19M	A	280	370	370	225	355	320
	B	-	285	285	-	195	-
2E21M	A	320	410	410	280	380	370
	B	-	350	350	-	280	-

# SERIES 2EL/2EM

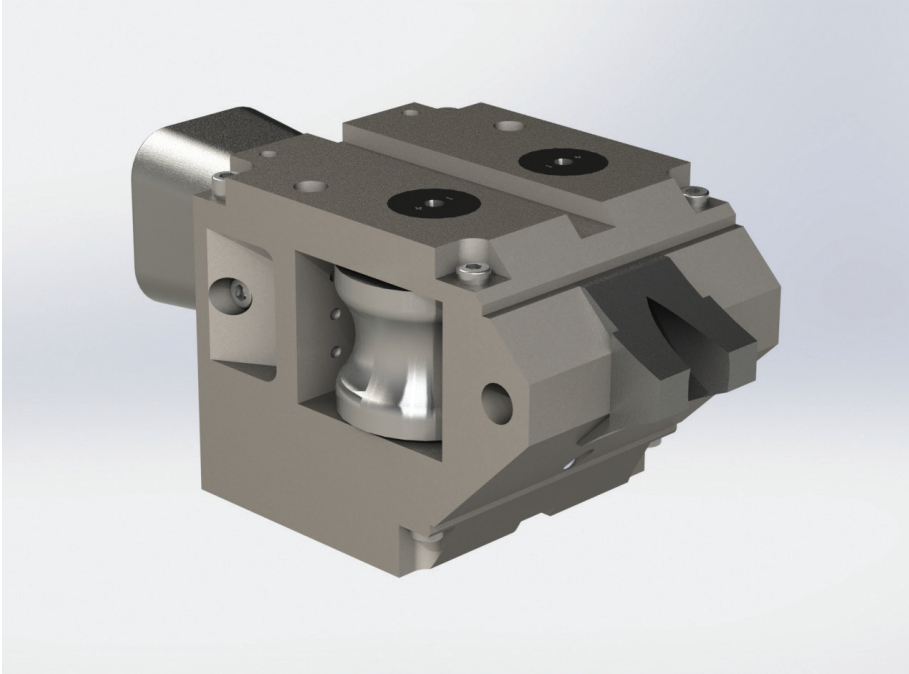
### DESIGN DATA



Dimension (mm)	A	B	C	D	ØE		G	H		Weight (kg)
Guide Type					max	min		max	min	
2E5L	85	320	97	194	92	-	92	118	78	64
2E7L	115	362	132	264	130	100	127	160	120	160
2E10L	130	410	155	310	150	110	150	190	150	210
2E13L	145	540	210	420	195	165	170	260	216	350
2E15L	185	580	255	510	250	200	230	300	252	390
2E17L	230	640	310	620	270	240	310	350	290	878
2E7M	115	362	132	264	130	100	127	180	140	170
2E10M	130	410	155	310	150	110	150	200	160	220
2E13M	145	540	210	420	195	165	170	280	236	360
2E15M	185	580	255	510	250	200	230	340	292	400
2E17M	230	640	310	620	230	200	310	440	380	888
2E19M	290	730	360	720	340	300	410	500	428	1710
2E21M	330	855	415	830	380	330	440	560	480	2050

# 2-ROLLER MONOBLOCK GUIDES SERIES SSA







FOR BAR SIZING MILL STANDS



### PRODUCT FEATURES

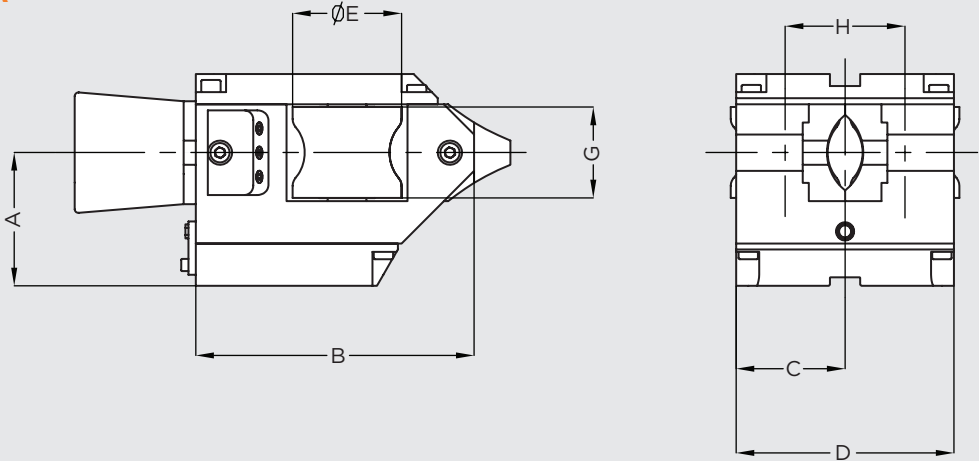
- Individual water cooling for rollers
- Air/oil or grease lubrication
- Single point symmetrical roller adjustment
- Variable entry bellmouth sizes
- Replaceable nose piece

### PRODUCT DATA

Maximum Recommended Size (mm)							
Guide Type							
RE45 SSA	A	22	40	40	15	40	22
	B	-	20	20	-	16	19
RE75 SSA	A	31	50	50	21	50	31
	B	-	29	29	-	16	26

# SERIES SSA

### DESIGN DATA



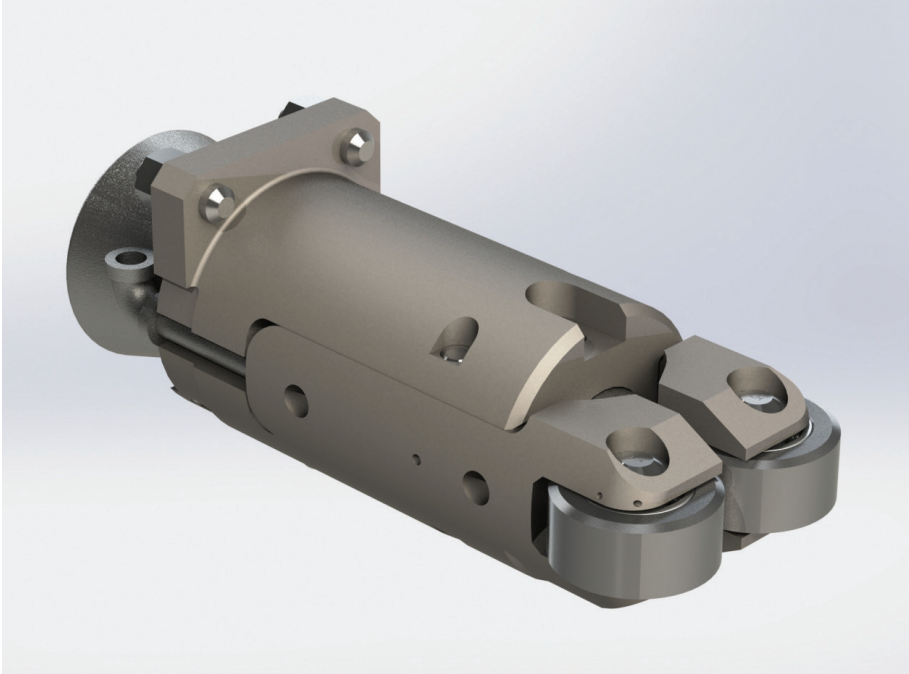
Dimension (mm)		A	B	C	D	ØE	G	H		Weight (kg)
Guide Type						max		min		
RE45 SSA		85	150	75	150	70	45	80	72	14
RE75 SSA		75	230	90	180	84	75	99	83	43



# 2-ROLLER ENTRY GUIDES

## SERIES RE/WRE

FOR INTERMEDIATE AND FINISHING MILL STANDS



### PRODUCT FEATURES

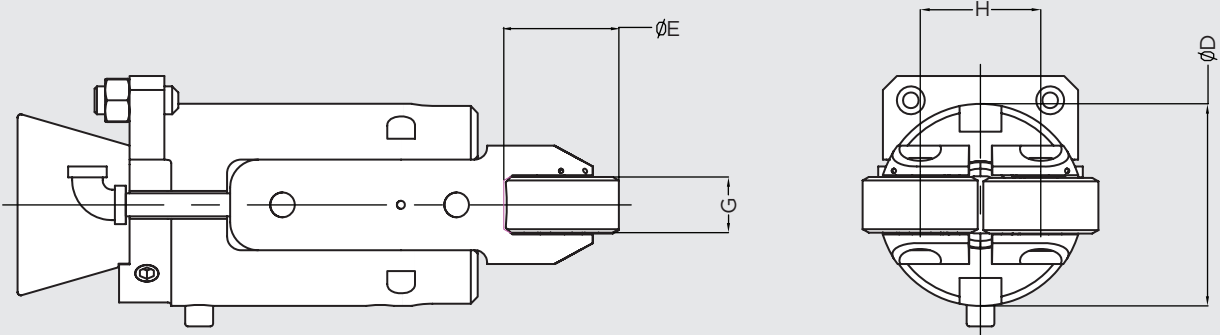
- Individual water cooling for rollers and statics
- Air/oil or grease lubrication
- Optional nose piece
- Individual roller adjustment
- Ability to preload roller holders

### PRODUCT DATA

Maximum Recommended Size (mm)							
Guide Type							
(W)RE2	A	16	28	26	15	22	16
	B	-	16	18	-	12	-
(W)RE2K	A	21	32	30	19	28	19
	B	-	20	22	-	16	-
(W)RE3	A	26	38	38	23	36	22
	B	-	24	26	-	20	-
(W)RE+4	A	38	52	52	32	50	36
	B	-	38	40	-	30	-

# SERIES RE/WRE

### DESIGN DATA

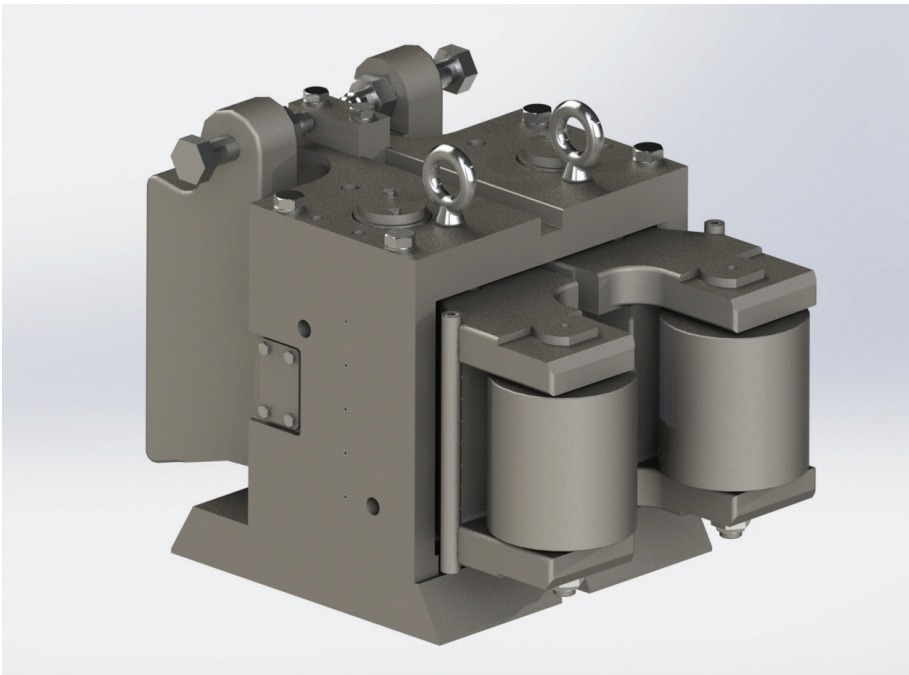


Dimension (mm)	ØD	ØE		G	H		Weight (kg)
Guide Type		max	min		max	min	
RE2	92	58	45	25.4	62	48	10
RE2K	108	58	50	30	68	50	14
RE3	120.5	70	52	38.1	78	54	17.5
RE+4	130.5	70	56	50.8	95	60	20
WRE2	92	58	45	25.4	62	48	10
WRE2K	108	58	50	30	68	50	14
WRE3	120.5	70	52	38.1	78	54	17.5
WRE+4	130.5	70	56	50.8	95	60	20

# 2-ROLLER ENTRY GUIDES

## SERIES ANR/APR

FOR ROUGHING MILL STANDS



### PRODUCT FEATURES

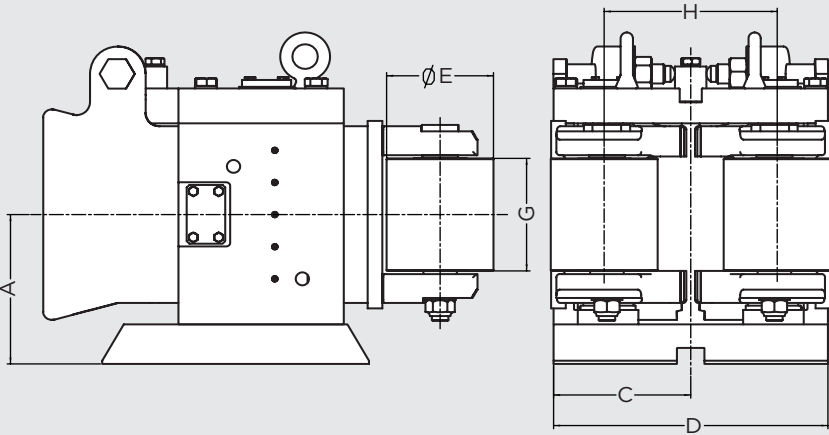
- Individual water cooling for rollers and statics
- Air/oil or grease lubrication
- Independent roller adjustment
- Integrated roller holder and insert design
- Available with remote pneumatic and hydraulic symmetrical roller adjustment
- Suitable for reversing stand applications

### PRODUCT DATA

Maximum Recommended Size (mm)							
Guide Type							
ANR/APR 150	A	112	150	150	112	150	112
	B	-	112	110	-	-	-
ANR/APR 180	A	130	180	180	130	180	130
	B	-	130	128	-	-	-
ANR/APR 210	A	151	210	210	151	210	151
	B	-	151	149	-	-	-

# SERIES ANR/APR

### DESIGN DATA

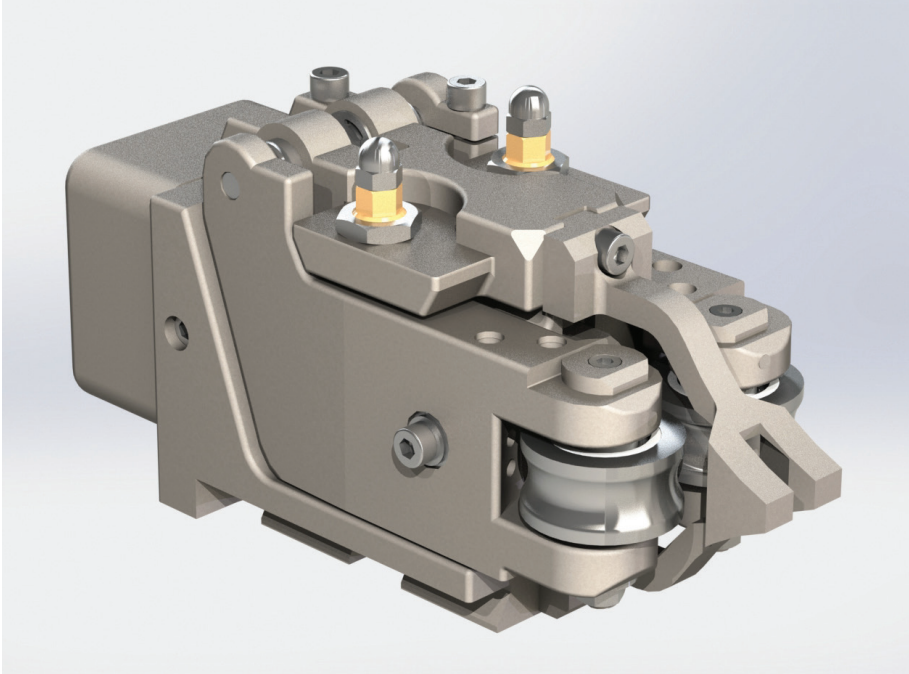


Dimension (mm)	A	B	C	D	ØE	G	H		Weight (kg)						
Guide Type								min		max					
ANR/APR 150					165		514	190		380	150	150	200	272	432
ANR/APR 180					174		500	200		400	160	180	245	315	464
ANR/APR 210					270		630	256		512	200	210	301	367	773



2-ROLLER (HIGH-SPEED) ENTRY GUIDES  
SERIES USX

FOR ROD FINISHING MILL STANDS



PRODUCT FEATURES

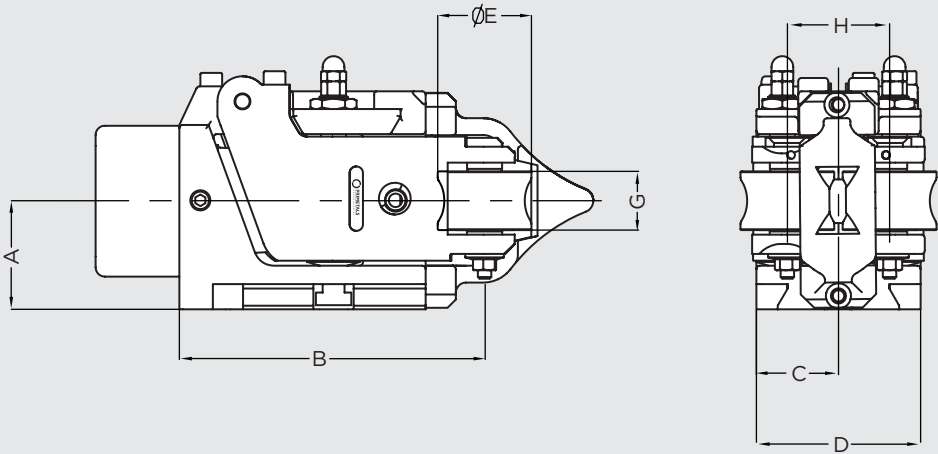
- Individual water cooling for rollers
- Air/oil or grease lubrication
- Single point symmetrical roller adjustment
- Replaceable nose piece
- Independent roller height adjustment
- 'X' Clamp mounting
- Optional roller holder preload feature
- Available for non-ferrous applications

PRODUCT DATA

Maximum Recommended Size (mm)							
Guide Type							
RE20 USX2	A	18	23	23	13	23	18
	B	-	13	13	-	-	16
RE25 USX2	A	27	25	25	19	25	27
	B	-	22	22	-	-	23
RE30 USX2	A	27	30	30	19	30	27
	B	-	22	22	-	-	23
RE35 USX2	A	27	34	34	19	35	27
	B	-	22	22	-	-	23
RE35 USX2(R)	A	33	-	-	23	-	32
	B	-	-	-	-	-	28
RE40 USX2	A	27	40	40	19	40	27
	B	-	22	22	-	-	23

SERIES USX

DESIGN DATA

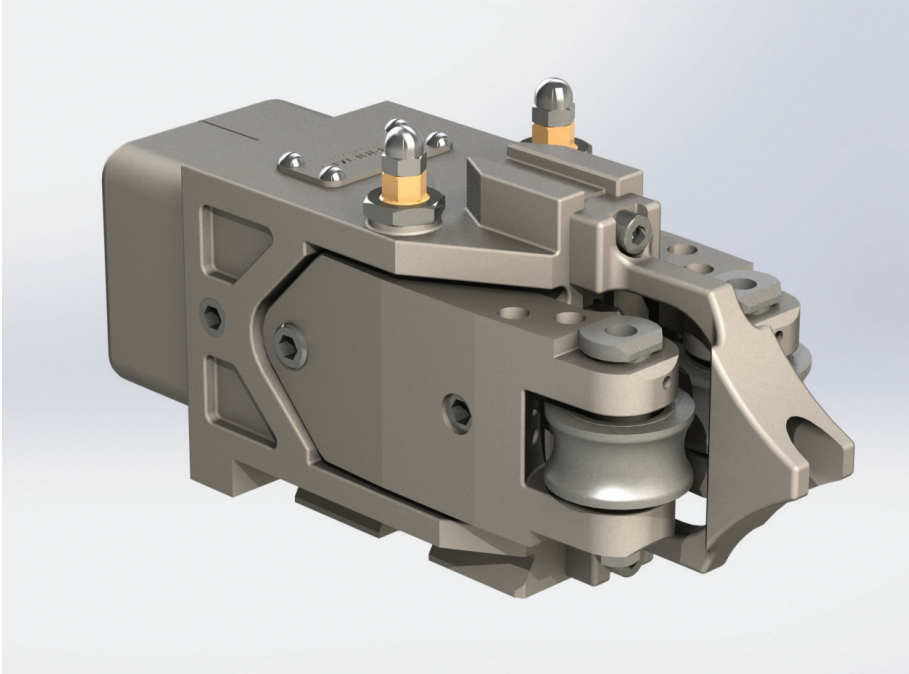


Dimension (mm)	A	B	C	D	ØE	G	H		Weight (kg)
Guide Type					max		min	max	
RE20 USX2	65	147	49	98	51	20	44	60	10
RE25 USX2	65	147	49	98	56	25	48	64	10
RE30 USX2	65	147	49	98	56	30	48	64	10
RE35 USX2	65	147	49	98	56	35	50	70	11
RE35 USX2(R)	65	147	49	98	56	35	55	75	12
RE40 USX2	65	147	49	98	56	35	55	75	12

# 2-ROLLER (HIGH-SPEED) ENTRY GUIDES

## SERIES AX

FOR ROD FINISHING MILL STANDS



### PRODUCT FEATURES

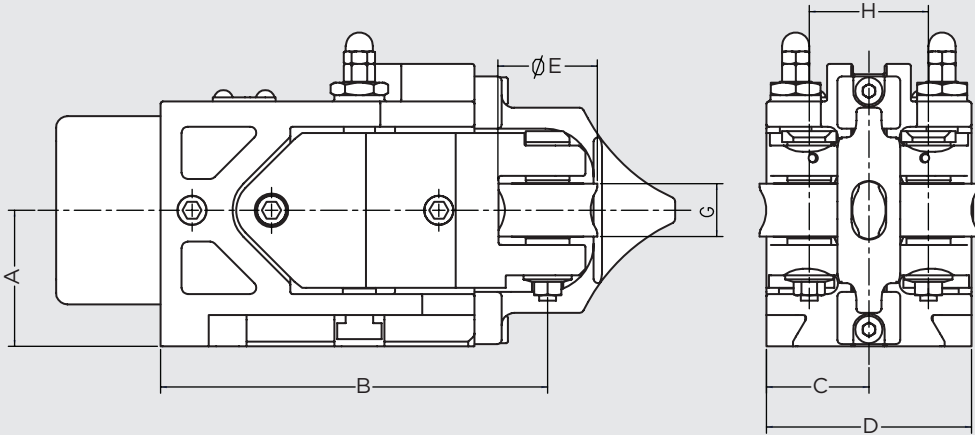
- Individual water cooling for rollers
- Air/oil or grease lubrication
- Independent roller adjustment
- Replaceable nose piece
- Independent roller height adjustment
- 'X' Clamp mounting
- Available for non-ferrous applications
- Ability to preload roller holders

### PRODUCT DATA

Maximum Recommended Size (mm)							
Guide Type							
RE20 AX	A	18	23	23	13	23	18
	B	-	13	13	-	-	16
RE25 AX	A	27	25	25	19	25	27
	B	-	22	22	-	-	23
RE30 AX	A	27	30	30	19	30	27
	B	-	22	22	-	-	23
RE35 AX	A	27	34	34	19	35	27
	B	-	22	22	-	-	23

# SERIES AX

### DESIGN DATA

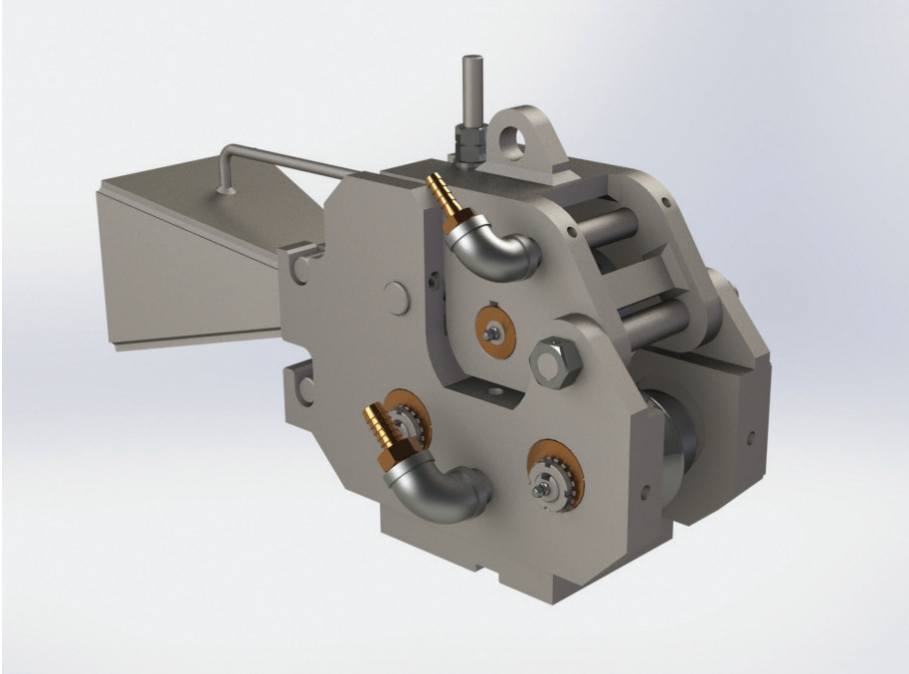


Dimension (mm)	A	B	C	D	ØE	G	H		Weight (kg)
Guide Type									
					max		min	max	
RE20 AX	65	147	49	98	51	20	44	60	10
RE25 AX	65	147	49	98	56	25	48	64	10
RE30 AX	65	147	49	98	56	30	48	64	10
RE35 AX	65	147	49	98	56	35	50	70	11

# 3-ROLLER ENTRY GUIDES

## SERIES EG/EH/EE

FOR INTERMEDIATE AND FINISHING MILL STANDS



### PRODUCT FEATURES

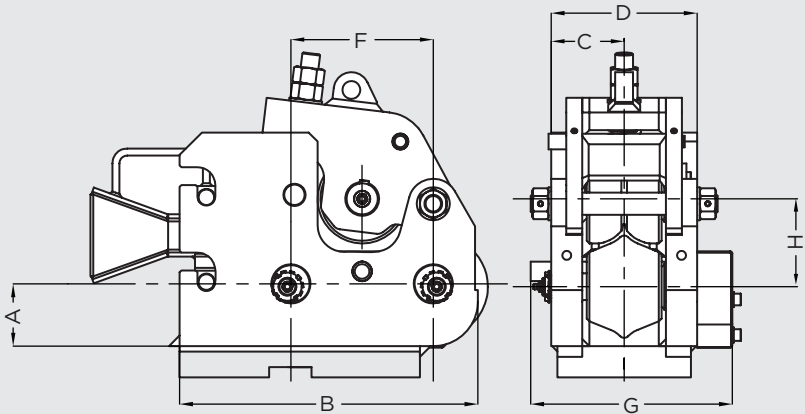
- Individual water cooling for rollers
- Direct air/oil or grease lubrication
- Variable entry bellmouth sizes
- Single point bottom roller adjustment
- Spring loaded top frame

### PRODUCT DATA

Maximum Recommended Size (mm)				
Guide Type				
3E3G	A	30	40	30
	B	-	20	15
3E4G	A	50	60	60
	B	-	40	30
3E5G	A	70	80	80
	B	-	60	45
3E5H	A	75	90	80
	B	-	60	45
3E7G	A	90	125	120
	B	-	75	55
3E13G	A	130	150	160
	B	-	90	63
3E15H	A	150	200	200
	B	-	100	75

# SERIES EG/EH/EE

### DESIGN DATA



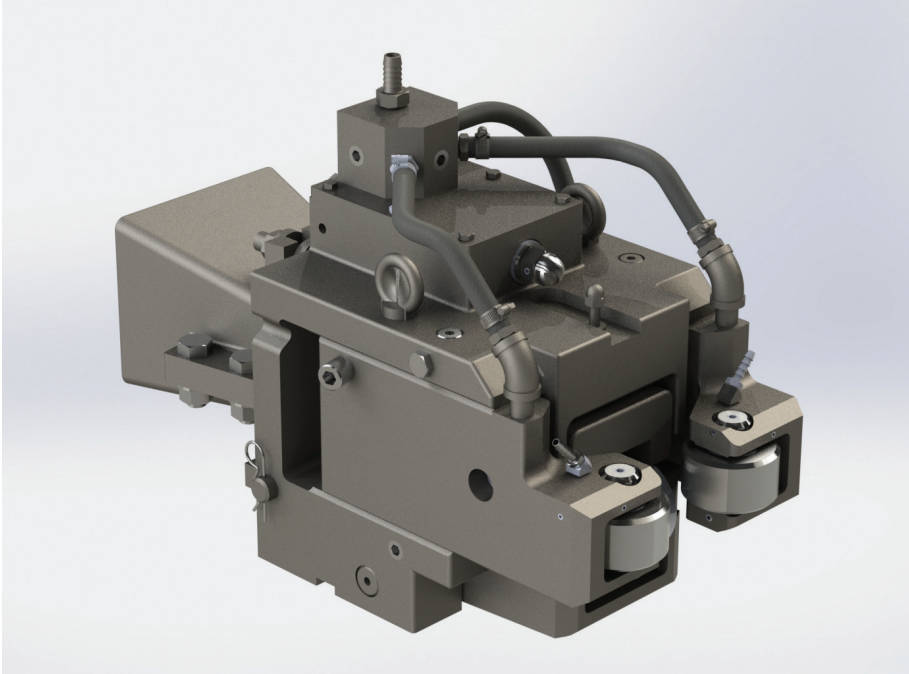
Dimension (mm)	A	B	C	D	H		F	G	Weight (kg)
Guide Type					max	min			
3E3G	85	275	65	130	80	60	114	188	32
3E4G	100	335	82	164	100	75	160	225	53
3E5G	132	444	107	214	115	125	232	298	150
3E5H	143	444	112	224	155	125	232	310	155
3E7H	120	560	140	280	138	100	305	307	195
3E13H	150	690	168	336	178	190	360	383	270
3E15H	180	750	203	406	200	150	400	453	450



# 3-ROLLER ENTRY GUIDES

## SERIES AR/FR

FOR INTERMEDIATE AND FINISHING MILL STANDS



### PRODUCT FEATURES

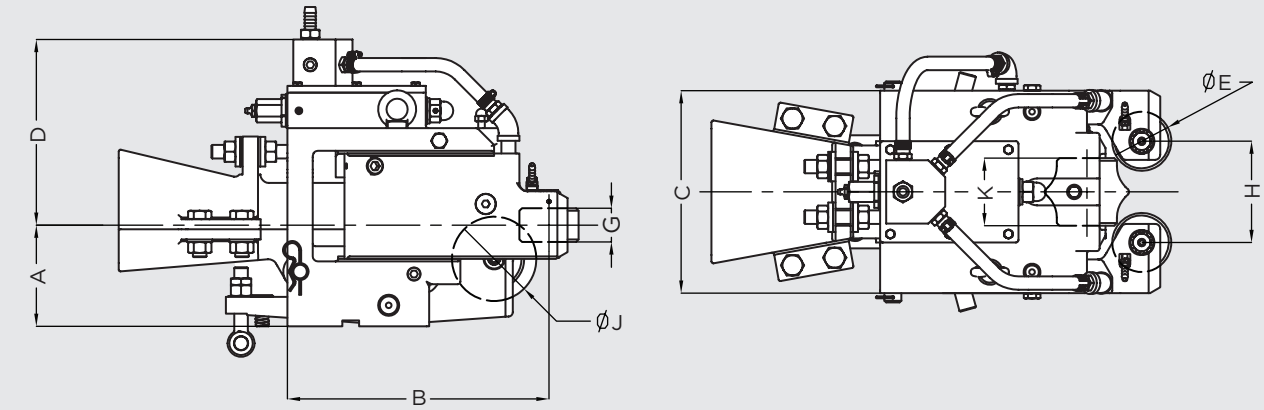
- Individual water cooling for rollers, statics and housing
- Direct air/oil or grease lubrication
- Single point symmetrical side roller adjustment
- Bottom roller adjustment
- Variable entry bellmouth sizes

### PRODUCT DATA

Maximum Recommended Size (mm)					
Guide Type					
AR3	A	40	-	55	55
	B	-	-	25	25
AR4	A	50	-	60	60
	B	-	-	30	30
AR5	A	70	-	80	80
	B	-	-	60	45
AR7	A	90	-	125	120
	B	-	-	75	50
AR13	A	130	-	150	160
	B	-	-	90	65
FR5	A	-	65-110	-	-
	B	-	5-50	-	-

# SERIES AR/FR

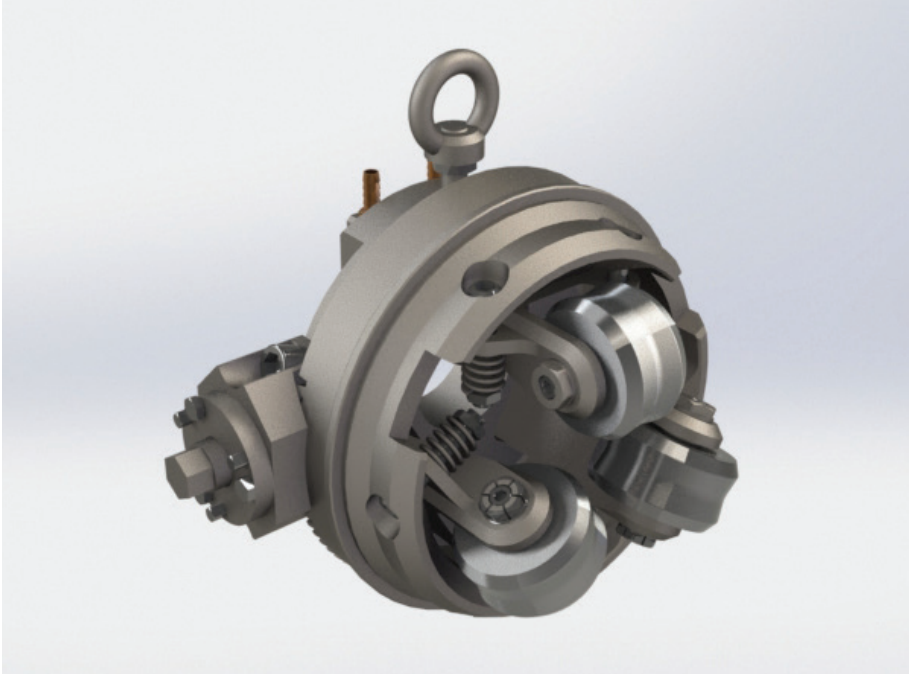
### DESIGN DATA




Dimension (mm)	A	B	C	D	ØE	G	H		ØJ	K	Weight (kg)
Guide Type					max		max	min			
AR3	105	260	200	193	60	35	123	88	82	70	52
AR4	130	310	240	210	70	40	140	100	100	80	115
AR5	135	305	290	220	76	50	186	146	130	114	135
AR7	180	350	394	245	90	75	270	200	180	186	235
AR13	250	460	490	305	100	90	340	270	256	240	405
FR5	135	315	290	220	76	60	186	140	120	114	140

# 3-ROLLER ENTRY GUIDES SERIES KSF

FOR THREE ROLL MILL STANDS



PRODUCT DATA

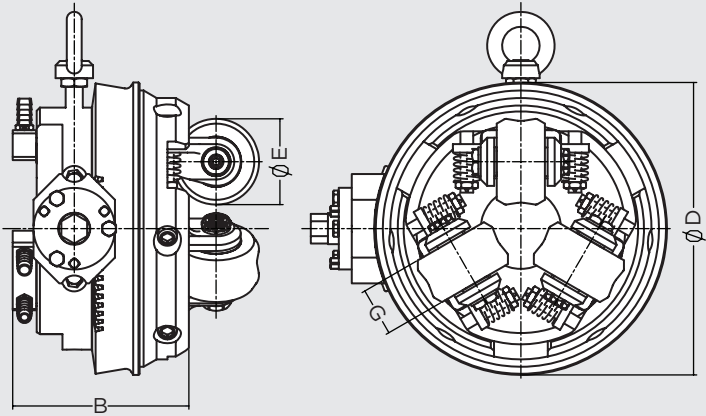
Maximum Recommended Size (mm)		
Guide Type		
RE25KSF3	A	32
	-	-
RE45KSF3	A	56
	-	-

PRODUCT FEATURES

- Individual water cooling and lubrication
- Air/oil or grease lubrication
- Single point symmetrical and individual roller adjustment
- Compatible with large bench optics

## SERIES KSF

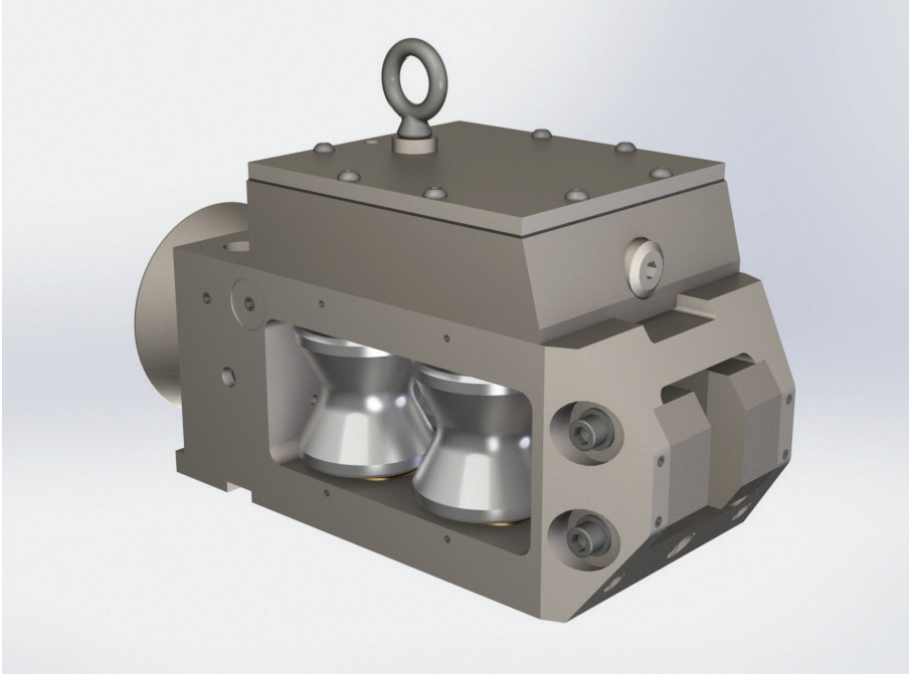
DESIGN DATA



Dimension (mm)	ØD	ØE	ØH		G	B	Weight (kg)
Guide Type			max	min			
RE25KSF3	273	72	109	91	25	218	24
RE45KSF3	273	90	132	118	45	218	25

# 4-ROLLER ENTRY GUIDES SERIES 4EL

FOR INTERMEDIATE AND FINISHING MILL STANDS



### PRODUCT FEATURES

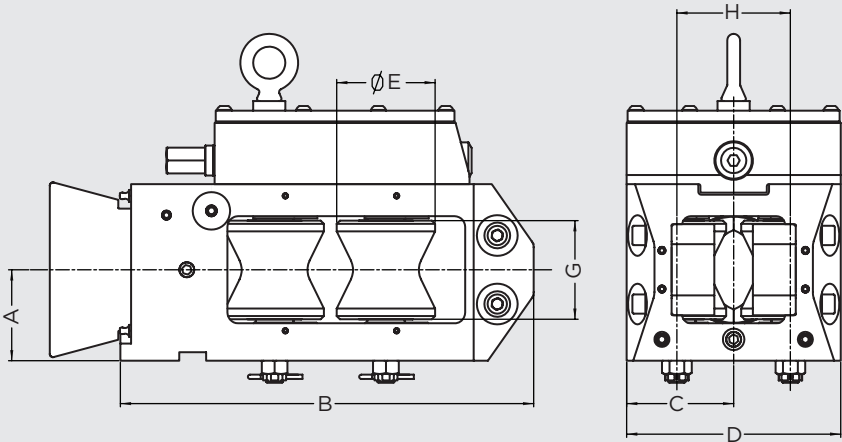
- Individual water cooling for rollers and statics
- Air/oil or grease lubrication
- Single point symmetrical roller adjustment
- Variable entry bellmouth sizes
- Replaceable nose piece

### PRODUCT DATA

Maximum Recommended Size (mm)							
Guide Type							
4E5L	A	54	80	80	46	70	46
	B	-	54	60	-	30	-
4E7L	A	76	120	140	60	110	60
	B	-	74	78	-	40	-
4E10L	A	90	140	140	70	125	70
	B	-	85	95	-	50	-
4E13L	A	105	160	160	90	140	90
	B	-	105	120	-	60	-
4E15L	A	140	220	220	120	180	120
	B	-	140	150	-	100	-

# SERIES 4EL

### DESIGN DATA

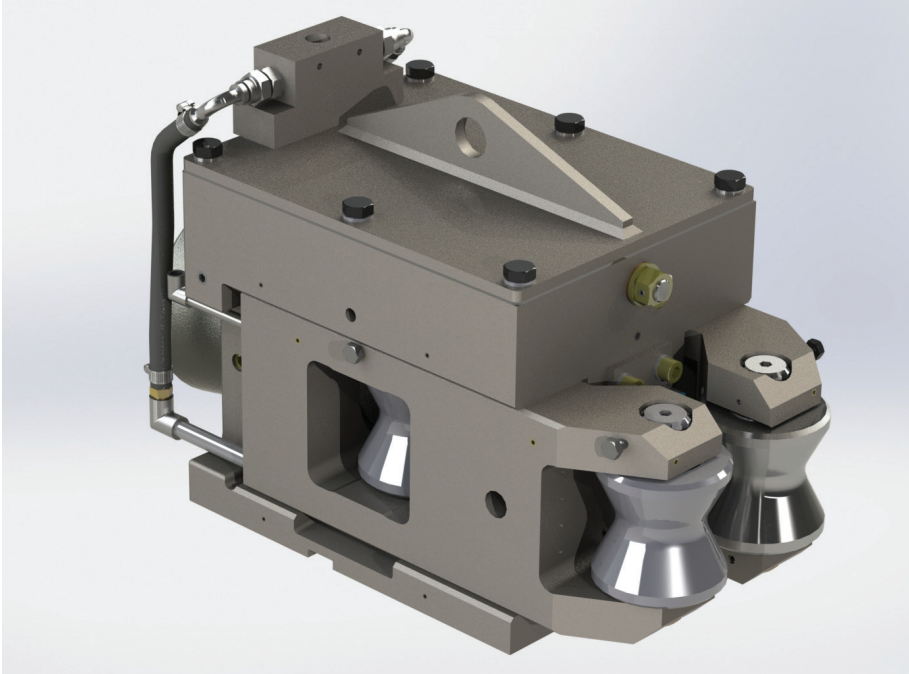


Dimension (mm)						ØE		G		H		Weight (kg)
Guide Type		A	B	C	D	max	min			max	min	
4E5L		85	386	97	194	100	65	92		126	86	100
4E7L		115	452	127	254	130	100	127		160	120	200
4E10L		130	530	150	300	150	110	150		180	140	300
4E13L		145	614	190	380	175	140	170		224	180	490
4E15L		185	705	220	440	230	190	230		260	208	650



4-ROLLER ENTRY GUIDES  
SERIES 4(E/D)

FOR INTERMEDIATE AND FINISHING MILL STANDS



PRODUCT FEATURES

- Individual water cooling for rollers, statics, housing and roller holder
- Air/oil or grease lubrication
- Single point symmetrical parallel roller holder adjustment
- Variable entry bellmouth sizes

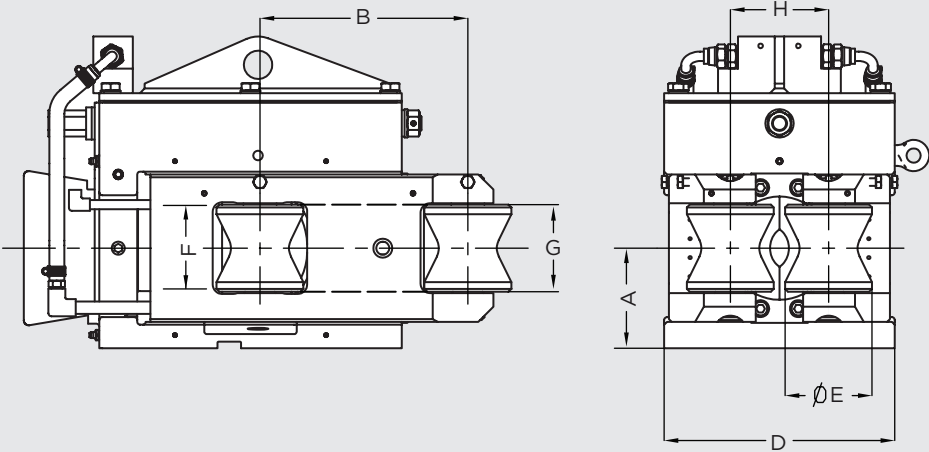
PRODUCT DATA

Maximum Recommended Size (mm)							
Guide Type							
4E2D	A	16	28	28	14	26	14
	B	-	16	18	-	12	-
4E3D	A	22	35	35	15	30	15
	B	-	18	20	-	15	-
4E4D	A	38	58	58	28	56	28
	B	-	34	38	-	28	-
4E5D	A	50	80	80	42	70	42
	B	-	50	54	-	30	-
4E4DJ	A	30	35	35	28	30	28
	B	-	24	26	-	28	-
4E5DJ	A	44	58	58	42	56	42
	B	-	40	44	-	42	-
4E5DJN	A	44	58	58	42	56	42
	B	-	40	44	-	42	-

Multi-Slitting Stock Size (mm)				
Max Recommended Stock Size (mm)				
4E4DJN	A	-	40	38
	B	-	15	21
4E4DPN	A	50	48	46
	B	14	19	26
4E4DQN	A	58	56	-
	B	14	19	-
4E5DJN	A	50	48	46
	B	14	19	26

SERIES 4(E/D)

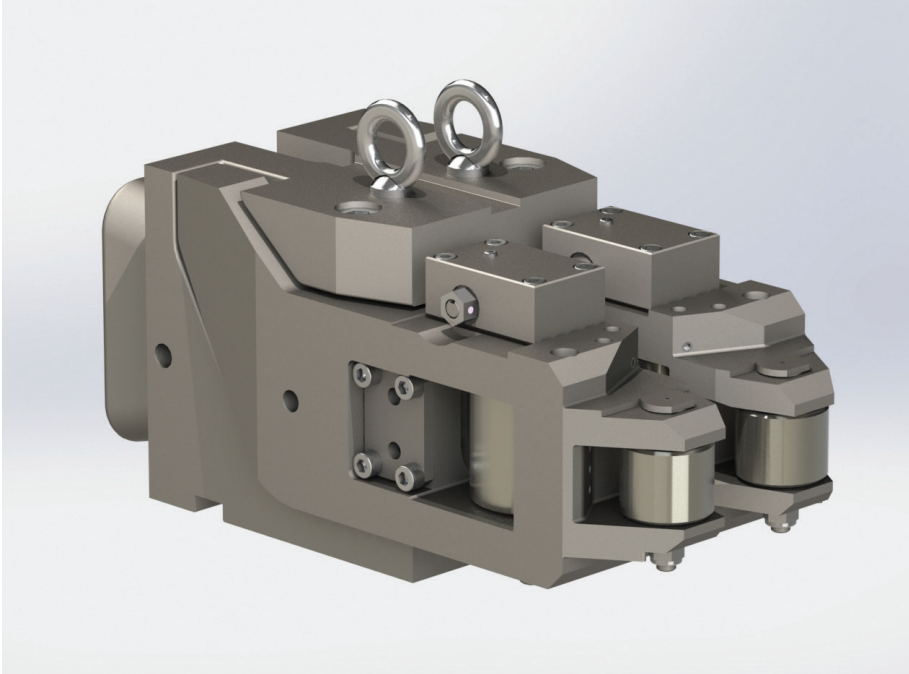
DESIGN DATA



Dimension (mm)					ØE		F	G	H		Weight (kg)
Guide Type		A	B	D	max	min			max	min	
4E2D		50	140	114	58	48	30	30	62	50	25
4E3D		60	175	156	64	52	35	35	68	52	44
4E4D		80	180	190	76	58	60	60	88	68	70
4E5D		106	220	244	92	70	92	92	114	94	144
4E4DJ		80	180	190	76	58	60	35	88	68	70
4E4DJN		80	180	190	76	58	60	35	100	80	70
4E4DPN		80	180	210	76	58	60	35	112	92	70
4E4DQN		80	180	210	76	58	60	35	120	100	70
4E5DJ		106	220	244	92	70	92	60	114	94	144
4E5DJN		106	220	244	92	70	92	60	114	94	146

4-ROLLER ENTRY GUIDES  
SERIES ASR

FOR INTERMEDIATE AND FINISHING MILL STANDS



PRODUCT FEATURES

- Individual water cooling for rollers
- Direct air/oil or grease lubrication
- Single point symmetrical front and rear roller holder adjustment
- Wide and standard body versions
- Smaller front roller version available to minimize guide roll to mill roll distance

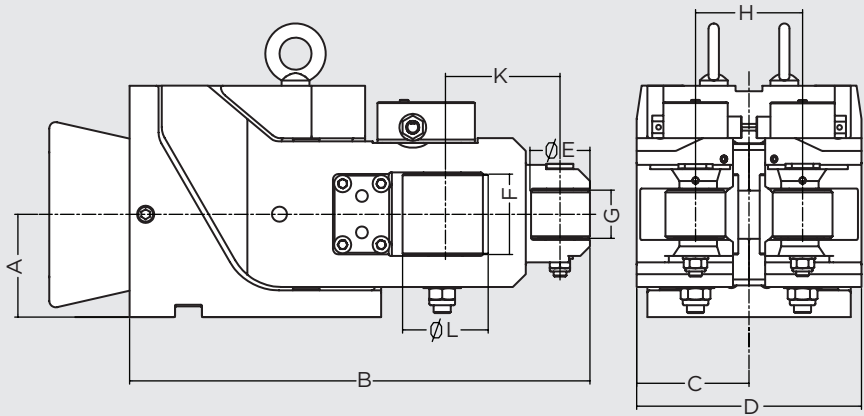
PRODUCT DATA

Maximum Recommended Size (mm)							
Guide Type							
RE35 ASR4	A	27	34	34	19	35	27
	B	-	22	22	-	12	-
RE45/25 ASR 4	A	-	-	-	-	-	-
	B	-	-	-	-	-	-
RE45/25 ASR4 (WB)	A	-	-	-	-	-	-
	B	-	-	-	-	-	-
RE45 ASR4	A	36	45	45	26	45	36
	B	-	25	25	-	13	-
RE75 ASR4	A	55	75	75	39	75	55
	B	-	41	41	-	27	-

Multi-Slitting Stock Size (mm)					
Max Recommended Stock Size (mm)					
RE35 ASR4	A	-	-	-	-
	B	-	-	-	-
RE45/25 ASR 4	A	40	-	40	38
	B	18	-	18	22
RE45/25 ASR4 (WB)	A	58	58	56	-
	B	22	15	20	-
RE45 ASR4	A	-	-	-	-
	B	-	-	-	-
RE75 ASR4	A	-	-	-	-
	B	-	-	-	-

SERIES ASR

DESIGN DATA

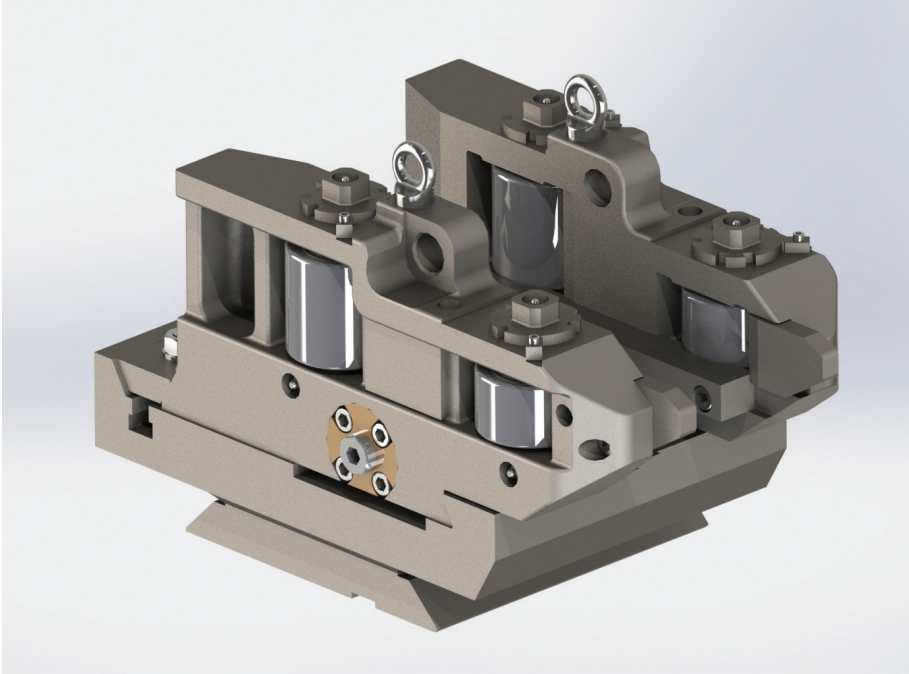


Dimension (mm)	A	B	C	D	ØE    ØL		F            G		H		Weight (kg)
Guide Type					max	max			max	min	
					RE35 ASR4	65	272	54	107	58	
RE45/25 ASR 4	90	338	87	174	73	78	45	25	98	83	51
RE45/25 ASR4 (WB)	90	338	100	200	73	78	45	25	124	109	54
RE45 ASR4	90	330	89	178	73	73	45	45	84	68	50
RE75 ASR4	120	425	104	208	84	84	75	75	110	88	98

# 4-ROLLER ENTRY GUIDES

## SERIES 4(FL/FJ)

FOR INTERMEDIATE AND FINISHING MILL STANDS



### PRODUCT FEATURES

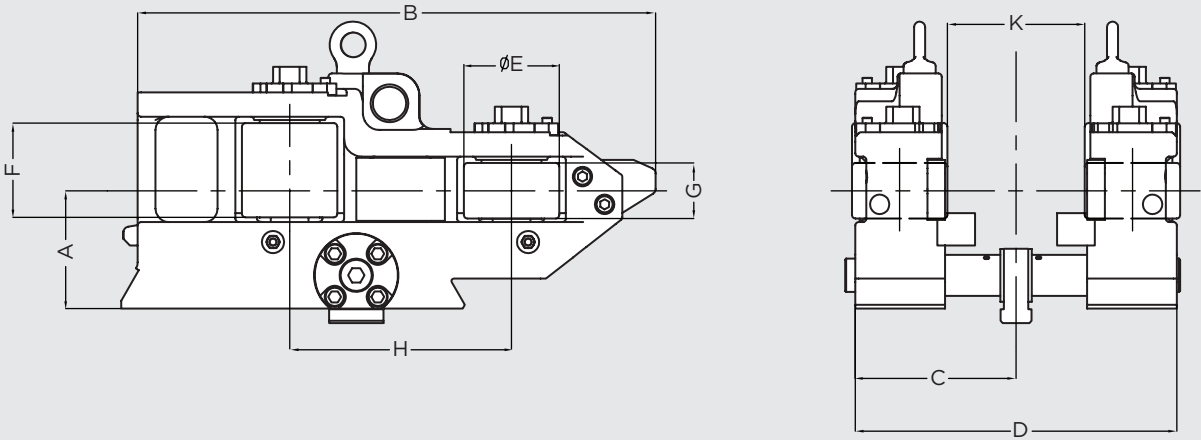
- Individual water cooling for rollers and guide halves
- Air/oil or grease lubrication
- Single point symmetrical 4-roller adjustment
- Replaceable nose piece
- Fine pass adjustment (FPA)
- Custom sizes available

### PRODUCT DATA

Maximum Recommended Size (mm)							
Guide Type							
4F80L	A	40	50	80			
	B	-	30	40			
4F130L	A	65	75	130			
	B	-	55	40			
4F180L	A	90	100	180			
	B	-	75	40			
4F80J	A	40	50	80			
	B	-	30	65			
4F130J	A	65	75	130			
	B	-	55	65			
4F180J	A	90	100	180			
	B	-	75	65			

# SERIES 4(FL/FJ)

### DESIGN DATA



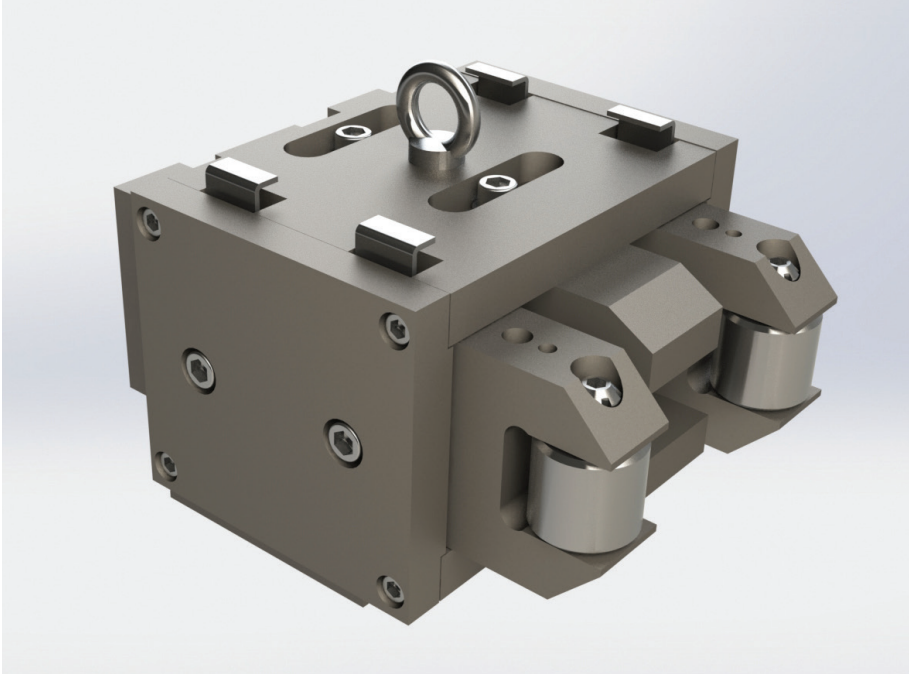
Dimension (mm)											
Guide Type	A (typ)	B	C	D	ØE	F	G	H	K		Weight (kg)
									max	min	
4F80L	102	465	123	246	86	85	50	200	80	20	77
4F130L	102	465	148	296	86	85	50	200	130	50	80
4F180L	102	465	173	346	86	85	50	200	180	100	83
4F80J	112	465	123	246	86	85	85	200	80	20	91
4F130J	112	465	148	296	86	85	85	200	130	50	94
4F180J	112	465	173	346	86	85	85	200	180	100	97



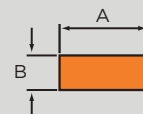
# 4-ROLLER ENTRY GUIDES

## SERIES 4FC

FOR ROUGHING AND INTERMEDIATE MILL STANDS



PRODUCT DATA

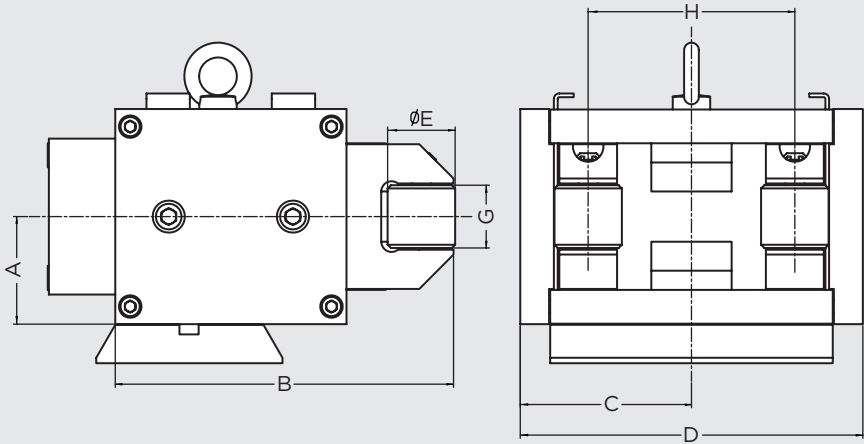
Maximum Recommended Size (mm)		
Guide Type		
4F75C	A	75
	B	30
4F120C	A	120
	B	50
4F165C	A	165
	B	50
4F210C	A	210
	B	50
4F255C	A	255
	B	50

PRODUCT FEATURES

- Individual water cooling for rollers
- Air/oil or grease lubrication
- Plate type top and bottom static guides
- Roller holders with push screw adjustment

# SERIES 4FC

DESIGN DATA

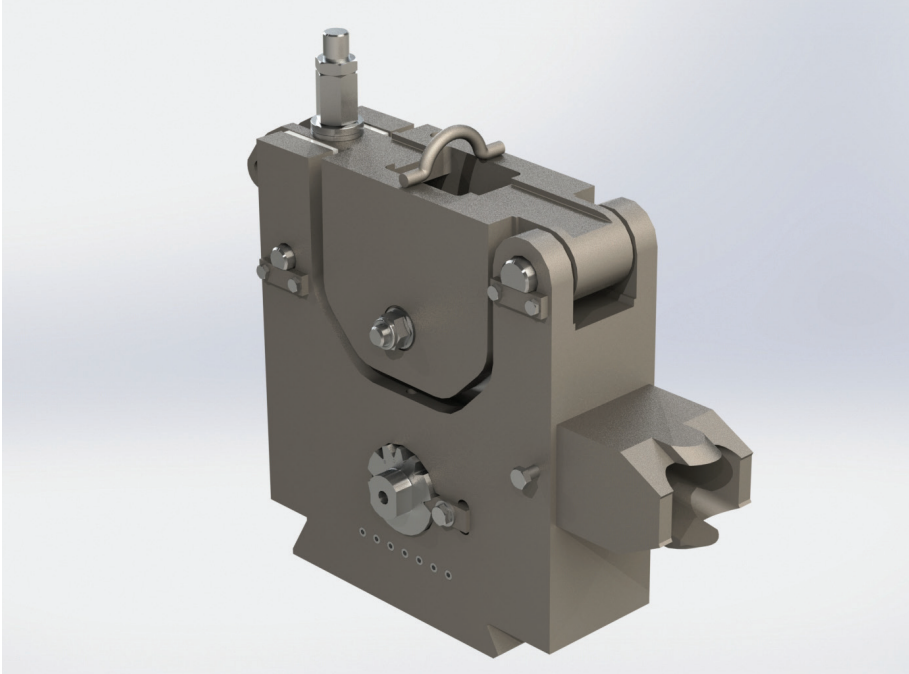


Dimension (mm)	A	B	C	D	ØE	G	H		Weight (kg)
Guide Type					max		max	min	
4F75C	110	320	129	275	75	65	150	105	127
4F120C	110	320	160	320	75	65	195	150	148
4F165C	110	320	183	365	75	65	240	195	167
4F210C	110	320	205	410	75	65	285	240	187
4F255C	110	320	228	455	75	65	330	285	207

# 2-ROLLER TWIST GUIDES

## SERIES TER

FOR ALL CONVENTIONAL SIZE MILL STANDS



### PRODUCT FEATURES

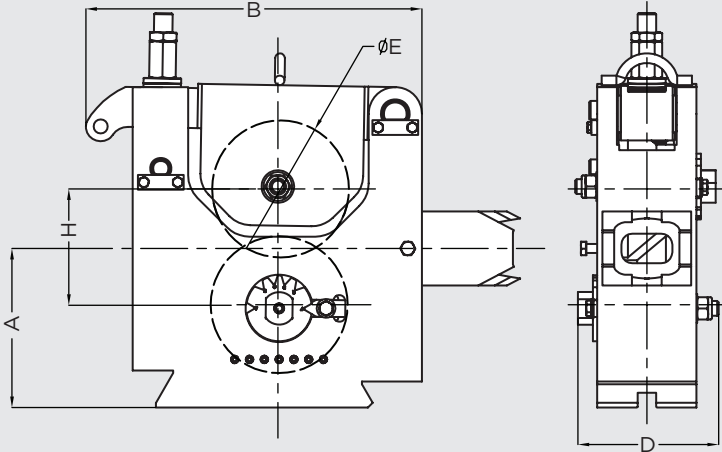
- Individual water cooling for rollers
- Direct air/oil or grease lubrication
- Optional cooling for mill rolls
- Replaceable insert
- Spring loaded top frame
- Eccentric roller shaft adjustment for roll turndown

### PRODUCT DATA

Maximum Recommended Size (mm)					
Guide Type					
RTD45	A	45	45	24	45
	B	25	25	-	20
RTD70	A	70	70	36	70
	B	37	37	-	28
RTD90	A	90	90	48	90
	B	50	50	-	39
RTD115	A	115	11	58	115
	B	59	59	-	45
RTD140	A	140	140	71	140
	B	73	73	-	58
RTD170	A	170	170	90	170
	B	90	90	-	70
RTD200	A	230	230	105	230
	B	130	130	-	110

## SERIES TER

### DESIGN DATA

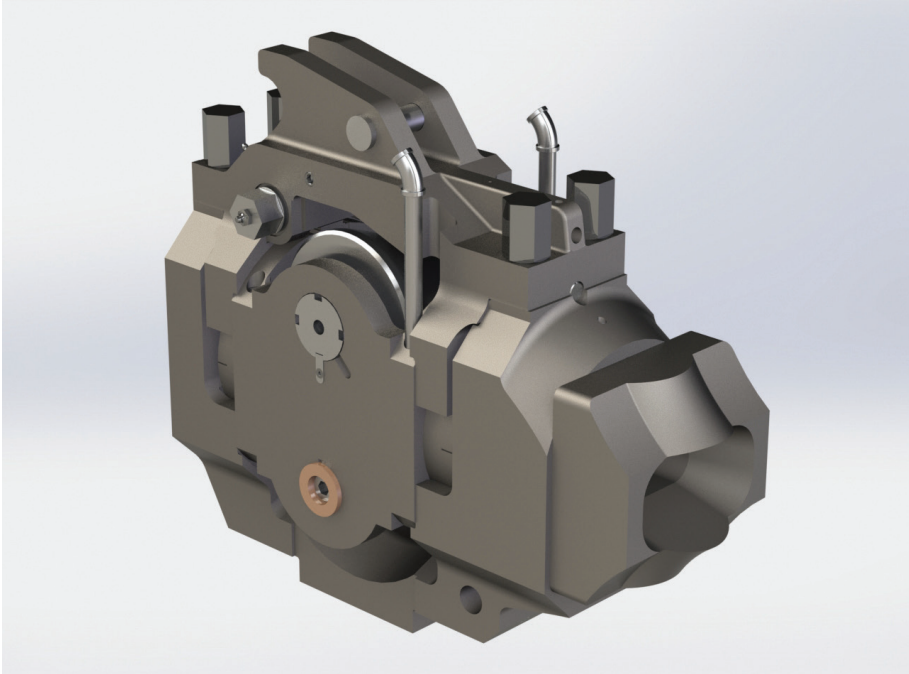


Dimensions (mm)	A (typ)	B	D	ØE max	H		Weight (kg)
Guide Type					max	min	
RTD45	170	305	145	140	136	126	58
RTD70	222	372	193	170	172	152	109
RTD90	257	405	219	215	202	182	199
RTD115	280	508	253	253	226	206	230
RTD140	375	650	325	295	304	274	345
RTD170	420	750	375	348	356	326	760
RTD200	500	860	445	455	465	435	1264

# 2-ROLLER TWIST GUIDES

## SERIES RS(C/D)

FOR ALL CONVENTIONAL SIZE MILL STANDS



### PRODUCT FEATURES

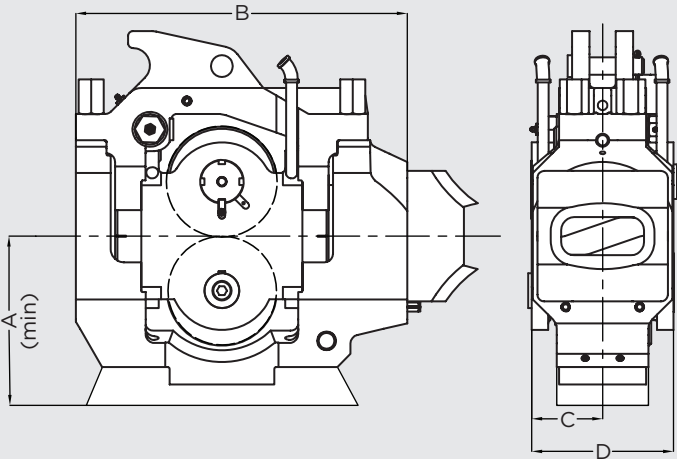
- Individual water cooling for rollers and nozzles
- Air/oil or grease lubrication
- Single point twist adjustment
- Optional pass cooling
- Eccentric roller shaft adjustment for roll turn down on RSD Series
- Replaceable nozzle

### PRODUCT DATA

Maximum Recommended Size (mm)											
Guide Type											
RS6C	A	64		64		30		80		35	
	B	32		38		-		14		30	
RS8C	A	90		90		42		70		60	
	B	42		48		-		20		44	
RS9C	A	130		130		58		100		70	
	B	54		80		-		20		60	
RS12C	A	150		150		74		130		80	
	B	74		100		-		25		70	
RS14C	A	180		180		90		150		95	
	B	90		12		-		30		85	
RS16C	A	220		220		120		200		140	
	B	130		150		-		40		120	
RS6D	A	64		66		32		60		35	
	B	36		40		-		14		30	
RS8D	A	90		90		45		80		60	
	B	45		50		-		20		50	
RS9D	A	130		130		6		120		70	
	B	56		80		-		20		60	
RS12D	A	150		150		76		140		80	
	B	74		100		-		25		70	
RS14D	A	190		190		90		160		100	
	B	96		120		-		30		90	

# SERIES RS(C/D)

### DESIGN DATA



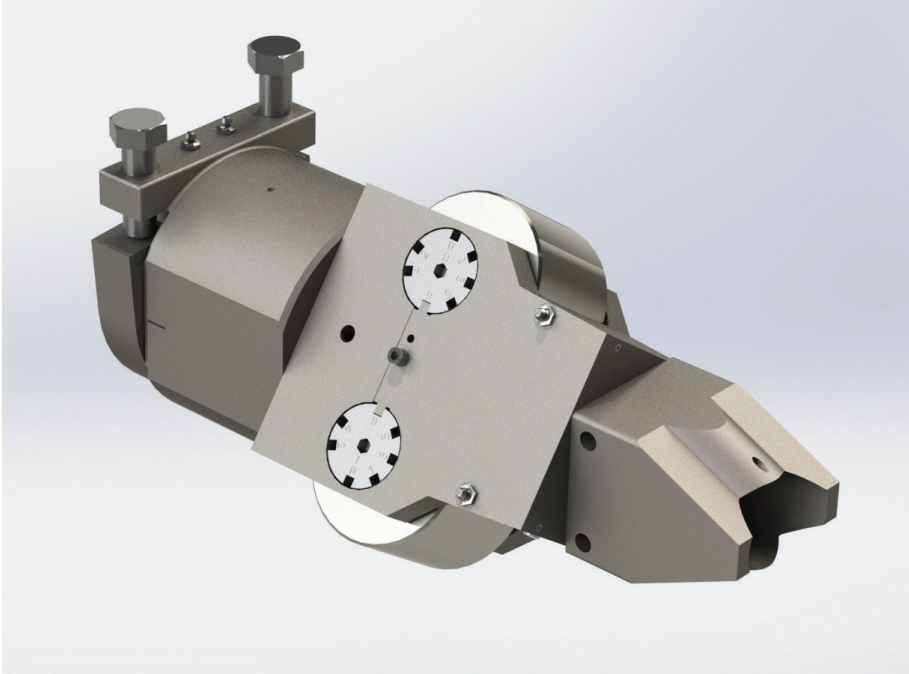
Dimension (mm)	A (min)	B	C	D	Weight (kg)
Guide Type					
RS6C/D	140	315	72.5	145	66
RS8C/D	180	360	100	200	108
RS9C/D	215	483	103	206	193
RS12C/D	305	597	139.5	279	460
RS14C/D	343	673	165	330	590
RS16C	406	736	184	368	930



# 2-ROLLER TWIST GUIDES

## SERIES RS(D)

FOR INTERMEDIATE AND FINISHING MILL STANDS



### PRODUCT FEATURES

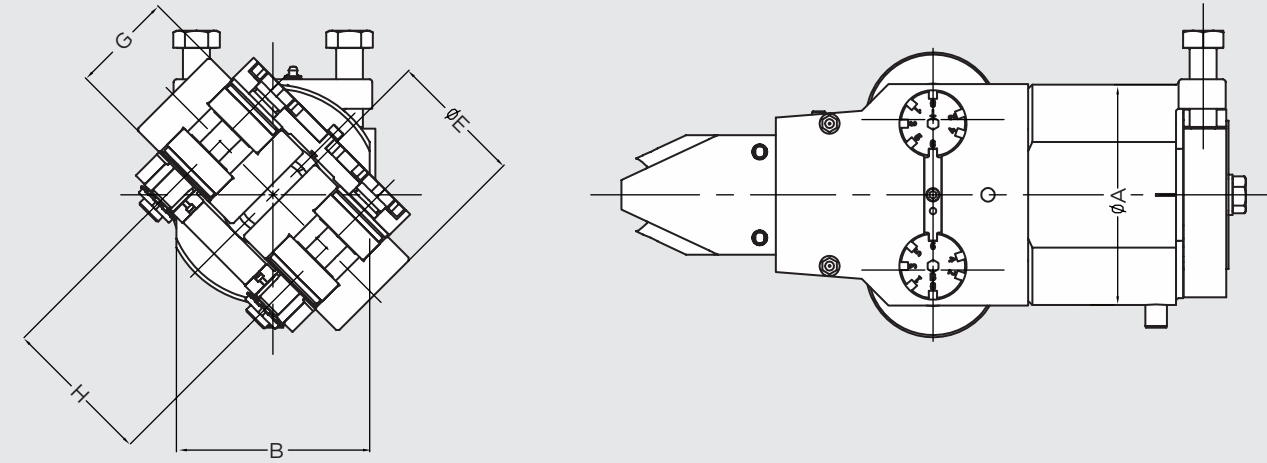
- Individual water cooling for rollers and cassette
- Air/oil or grease lubrication
- Optional pass cooling
- Incremental eccentric roller adjustment
- Replaceable insert

### PRODUCT DATA

Maximum Recommended Size (mm)					
Guide Type					
RS2D	A	28	28	16	20
	B	15	18	-	15
RS3D	A	36	36	22	30
	B	20	24	-	18
RS4D	A	56	58	36	46
	B	26	32	-	26

# SERIES RS(D)

### DESIGN DATA

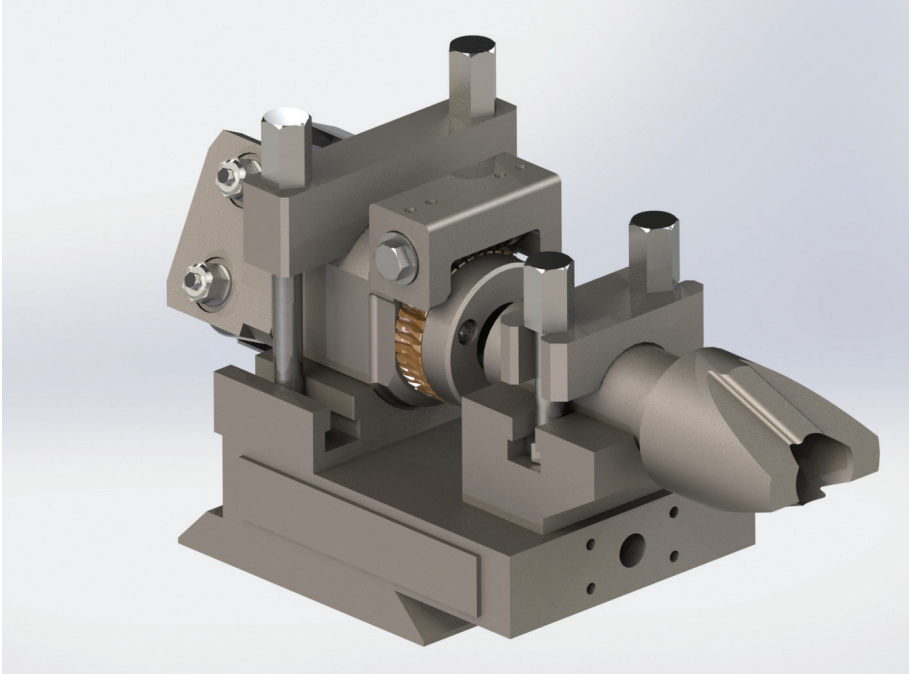


Dimention (mm)	ØA	B	E		G	H		Weight (kg)
Guide Type			max	min		max	min	
RS2D	108	89	57	45	25.4	63	53	10.5
RS3D	136	110	66	52	42	76	64	22
RS4D	164	144	100	70	76	112	100	39.5

# 2-ROLLER TWIST GUIDES

## SERIES RS(N)

FOR INTERMEDIATE AND FINISHING MILL STANDS



### PRODUCT FEATURES

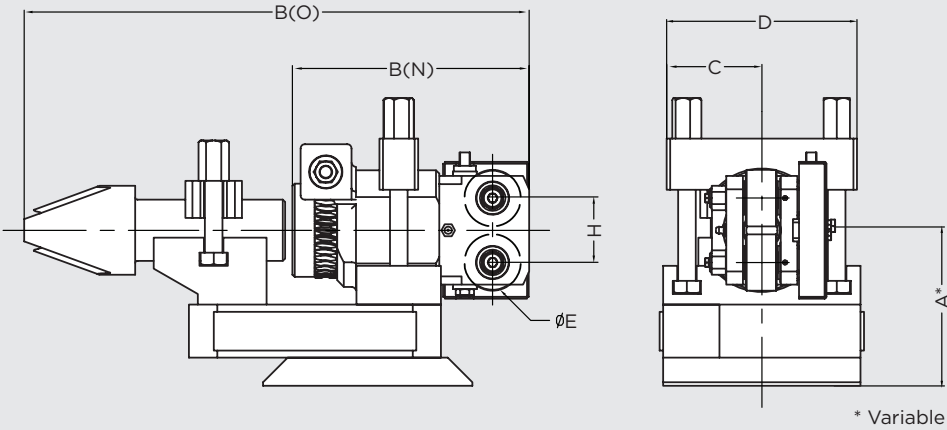
- Water cooling for rollers and body
- Air/oil or grease lubrication
- Single point symmetrical roller and angle adjustment
- Replaceable insert
- Inboard and outboard roller options
- Quick change cassette

### PRODUCT DATA

Maximum Recommended Size (mm)					
Guide Type					
RS2N(O)	A	28	28	15	20
	B	18	18	-	15
RS3N(O)	A	38	38	20	30
	B	24	24	-	20
RS4N(O)	A	58	58	40	50
	B	38	46	-	30
RS2NL(O)	A	28	28	18	20
	B	18	22	-	18
RS3NL(O)	A	38	38	27	30
	B	26	30	-	25

# SERIES RS(N)

### DESIGN DATA



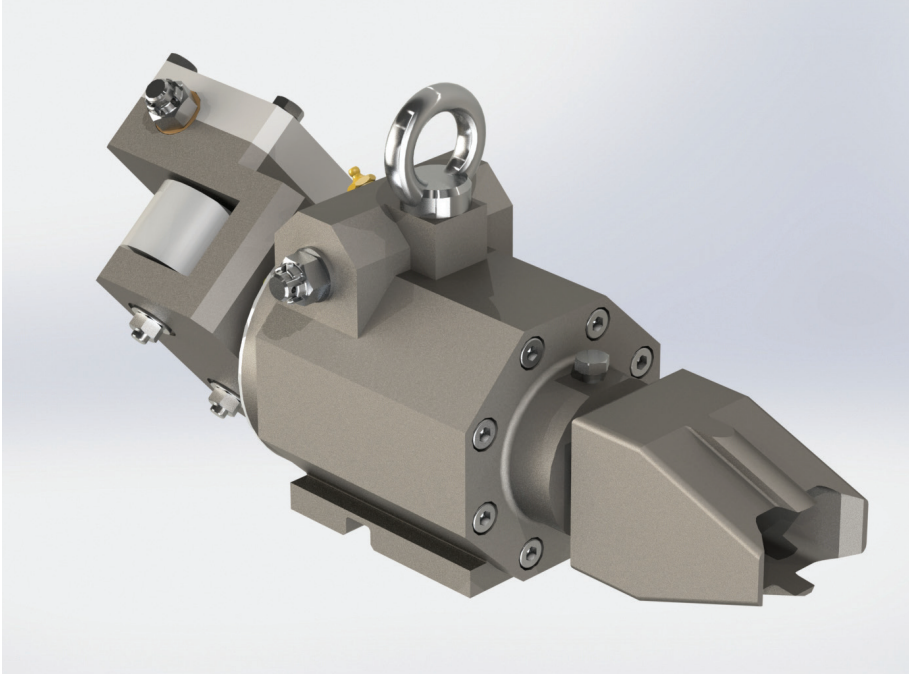
Outboard Guide

	Dimension (mm)	B	C	D	ØE	H		Weight
	Guide Type					max	min	
Outboard	RS2NO	455	79	158	58	63	53	11.5
	RS3NO	540	105	210	68	76	64	24
	RS4NO	600	120	240	98	112	100	43
	RS2NLO	455	79	158	58	68	58	11.5
	RS3NLO	540	105	210	68	84	42	24
Inboard	RS2N	244	79	158	58	63	53	11.5
	RS3N	298	105	210	68	76	64	24
	RS4N	360	120	240	98	112	100	43
	RS2NL	244	79	158	58	68	58	11.5
	RS3NL	298	105	210	68	84	72	24

# 2-ROLLER TWIST GUIDES

## SERIES CSW/CSR

FOR INTERMEDIATE AND FINISHING MILL STANDS



### PRODUCT FEATURES

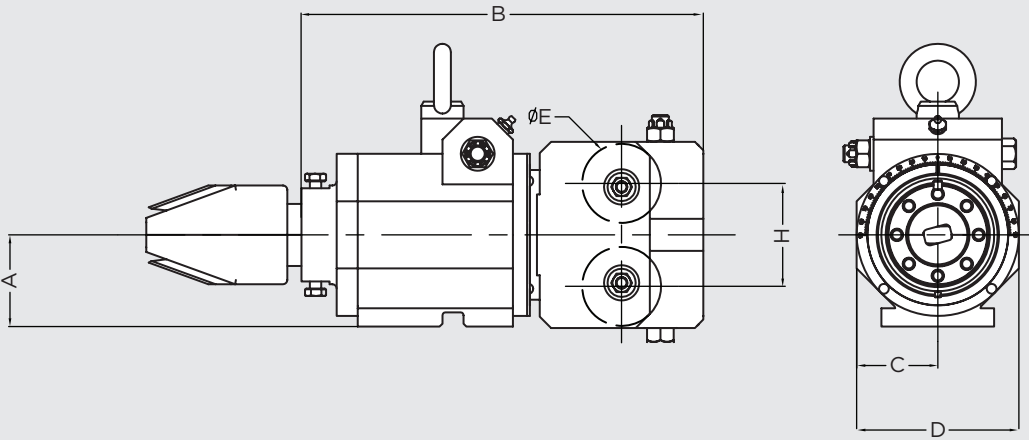
- Individual water cooling for rollers
- Air/oil or grease lubrication
- Single point symmetrical roller and angle adjustment
- Replaceable insert

### PRODUCT DATA

Maximum Recommended Size (mm)					
Guide Type					
RTD-35CSR	A	27	27	27	27
	B	10	27	-	3
RTD-45CSW	A	42	42	42	42
	B	32	42	-	19
RTD-75CSW	A	68	68	68	68
	B	50	68	-	17
RTD-115CSR	A	118	118	80	118
	B	90	118	-	33
RTD-120CSW	A	130	130	73	130
	B	82	50	-	28
RTD-180CSR	A	140	140	140	140
	B	110	140	-	70

# SERIES CSW/CSR

### DESIGN DATA

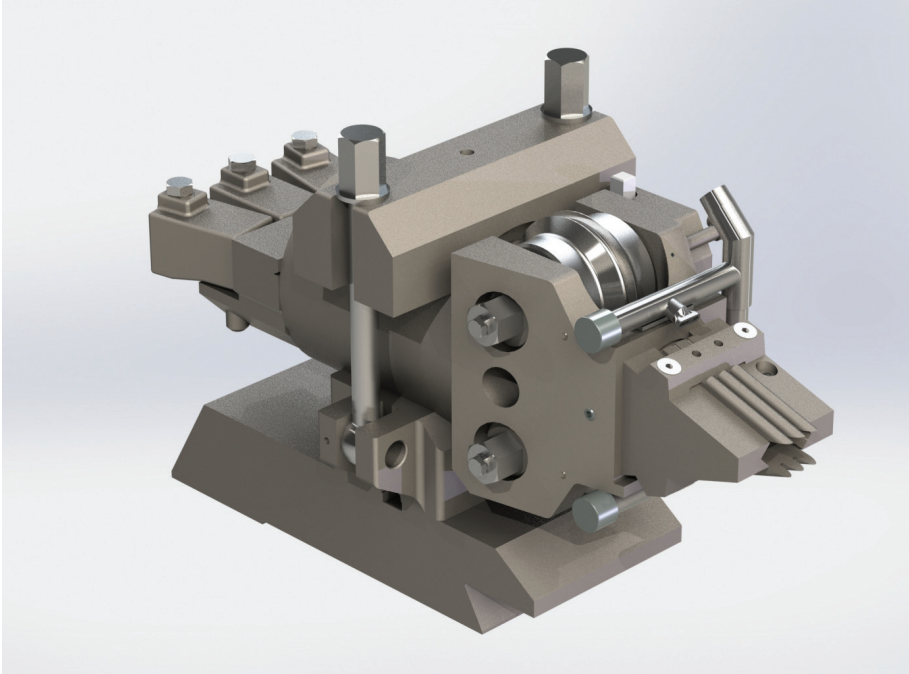


Dimension (mm)	A	B	C	D	ØE	H		Weight (kg)
Guide Type					max	max	min	
RTD-35CSR	65	285	57.5	115	65	73	63	17
RTD-45CSW	65	297	75	150	74	95	85	32
RTD-75CSW	117	485	114	228	95	118	106	107
RTD-115CSR	160	593	160	320	145	167	153	181
RTD-120CSW	171	615	155	310	154	182	162	265
RTD-180CSR	270	710	195	390	170	260	240	481

# 2- OR 3-STRAND SLITTING GUIDES

## SERIES SLF/SLFW

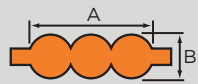
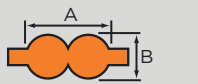
FOR INTERMEDIATE AND FINISHING MILL STANDS



### PRODUCT FEATURES

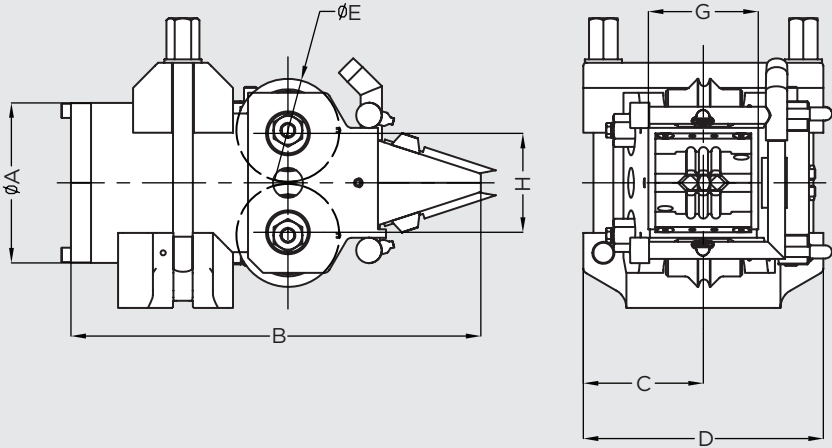
- Water cooling for rollers, cassette and nozzle
- Air/oil or grease lubrication
- Single point symmetrical roller adjustment
- Swing clamp holder
- Composite or one-piece nozzles available

### PRODUCT DATA

Maximum Recommended Size			
Guide Type			
SL1F(W)	A	-	52
	B	-	24
SL2F(W)	A	-	71
	B	-	33
3SL1F(W)	A	54	-
	B	19	-

# SERIES SLF/SLFW

### DESIGN DATA



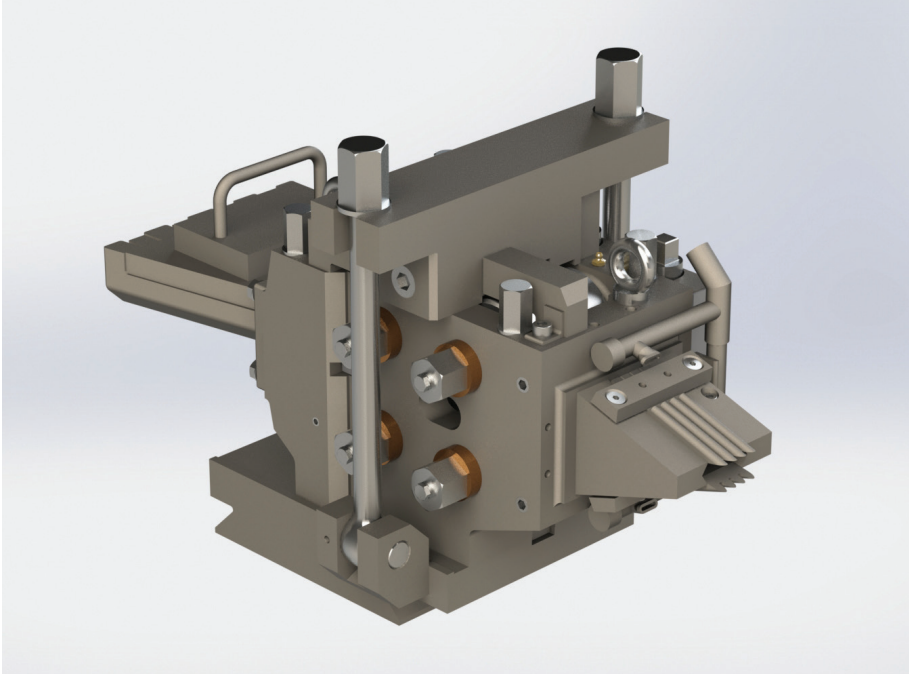
Dimension (mm)	ØA	B	C	D	ØE	G	H	Weight (kg)
Guide Type					max		max	
SL1F(W)	160	410	120	240	104	96	105	72
SL2F(W)	160	420	120	240	110	120	112	70
3SL1F(W)	160	410	120	240	104	96	105	68



# 4-STRAND SLITTING GUIDES

## SERIES 4SL1J

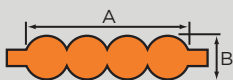
FOR INTERMEDIATE AND FINISHING MILL STANDS



### PRODUCT FEATURES

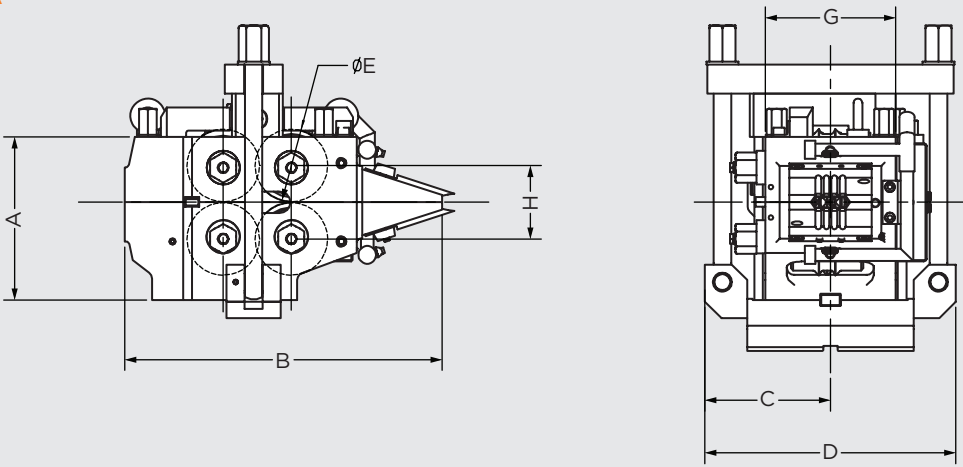
- Water cooling for rollers, cassette and nozzle
- Air/oil or grease lubrication
- Separate single point symmetrical roller adjustment for front and rear rollers
- Swing clamp holder
- Composite or one-piece nozzles available

### PRODUCT DATA

Maximum Recommended Size		
Guide Type		
4SL1X	A	45-63
	B	11-15

## SERIES 4SL1J

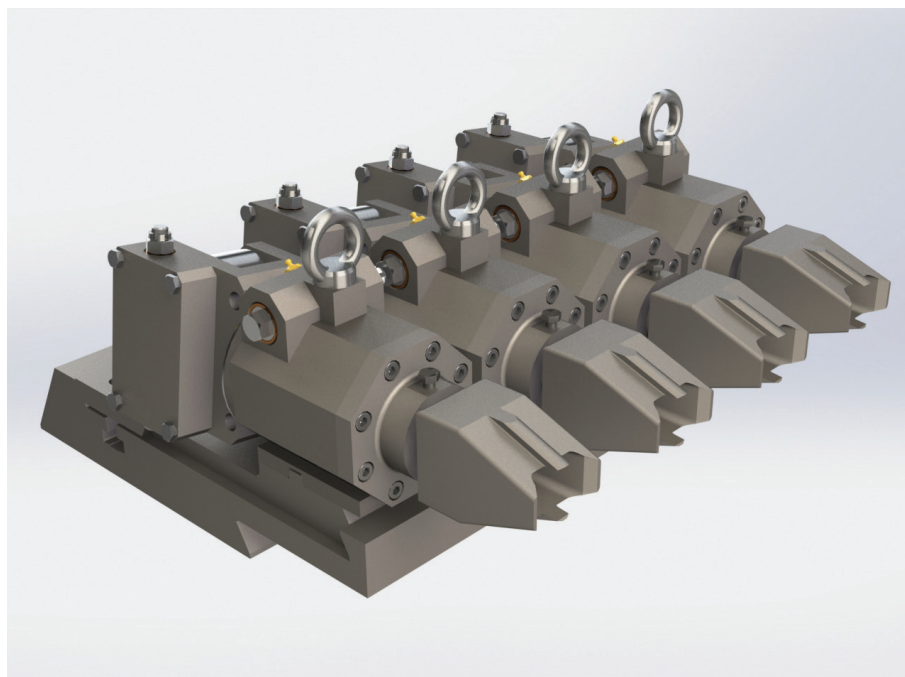
### DESIGN DATA



Dimension (mm)	A	B	C	D	ØE	G	H	Weight (kg)
Guide Type					max		max	
4SL1X	225	438	173	346	100	180	102	160

## POST SLITTER MULTI-STRAND GUIDES

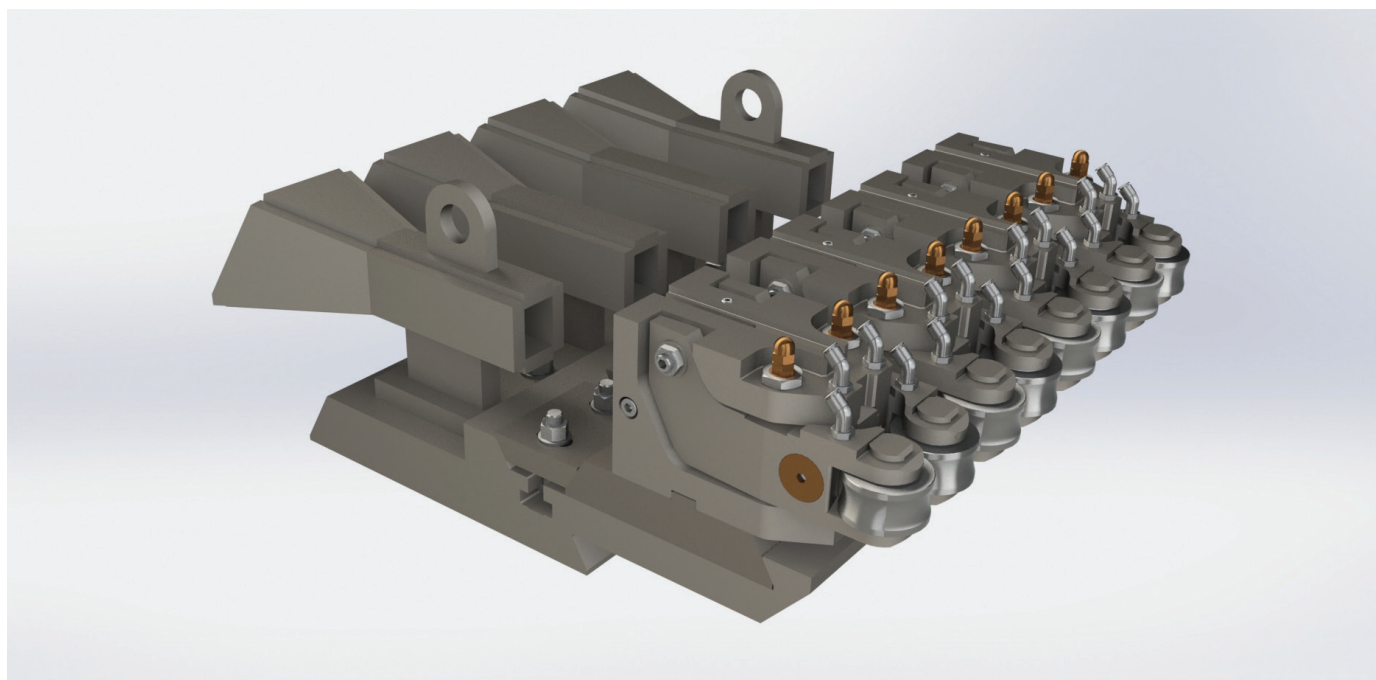
FOR FINISHING MILL STANDS



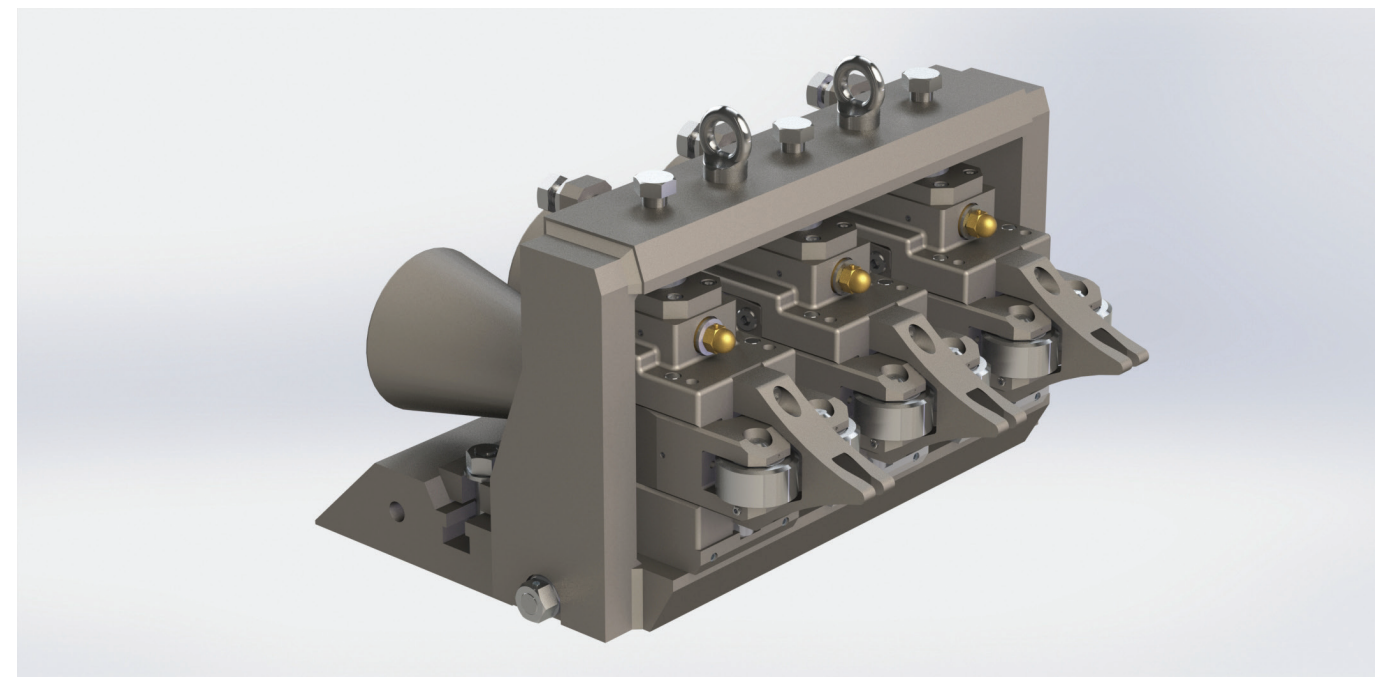
4-Strand RTD35-CSR arrangement

### PRODUCT FEATURES

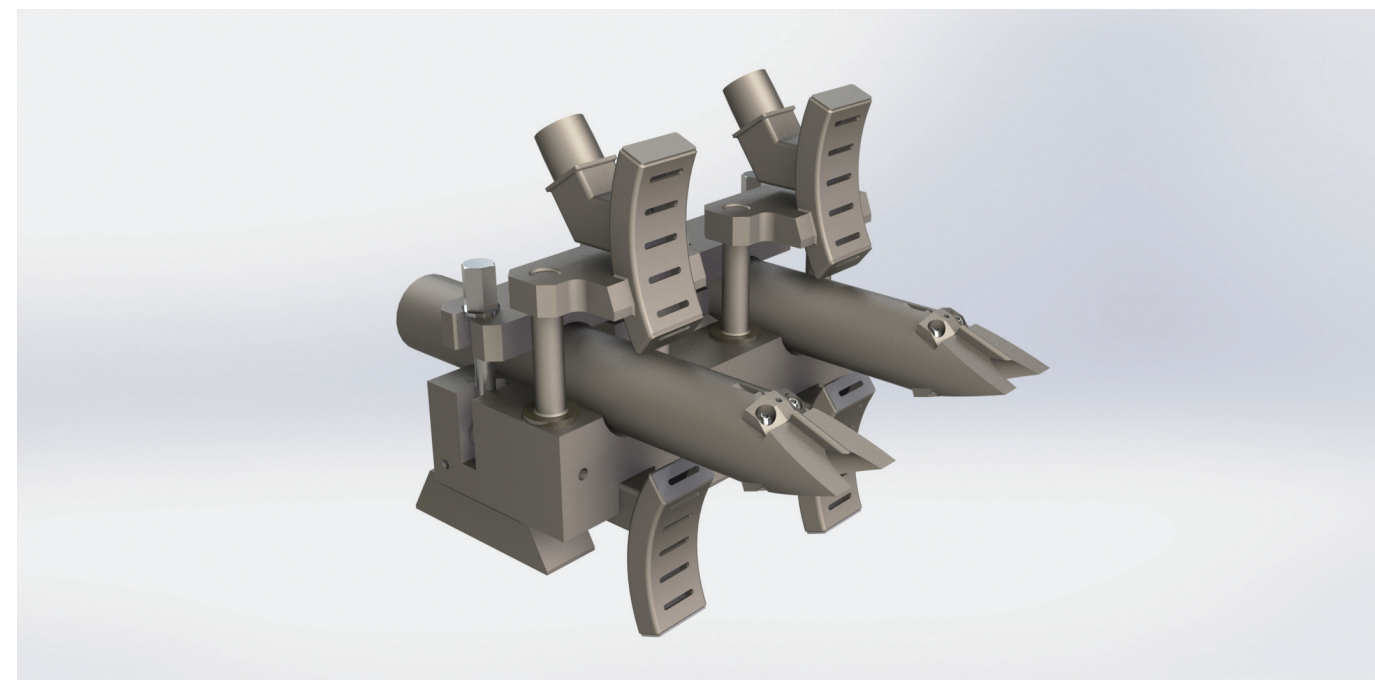
- Single mounting base for multiple guides accurately holds centerline spacing
- Application specific design
- 2,3 and 4-strand configurations available
- Roller entry, twist delivery and static arrangements
- Fine Pass Adjustment (FPA) available



4-Strand ERG 30 arrangement



3-Strand RE2F arrangement

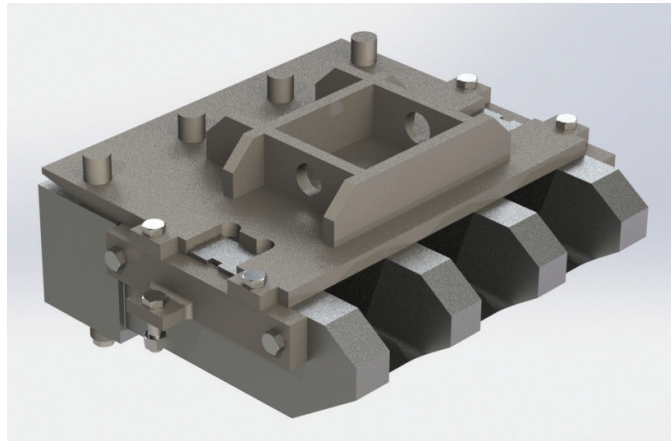


2-Strand static delivery arrangement



## STATIC RECEIVING GUIDES: LOW-SPEED GANG GUIDES

FOR ROUGHING MILL STANDS

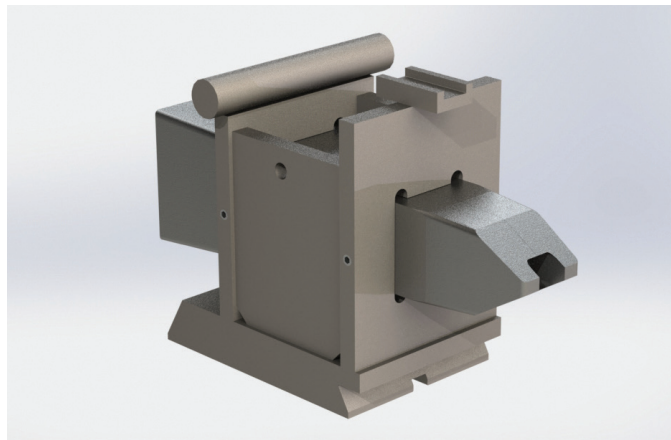


### PRODUCT FEATURES

- Multi-pass gang guide requires no change time for pass changes
- Ultra heavy-duty construction for long service life
- Removable top for cobble protection and service

## STATIC HALF GUIDES

FOR ALL CONVENTIONAL SIZE MILL STANDS

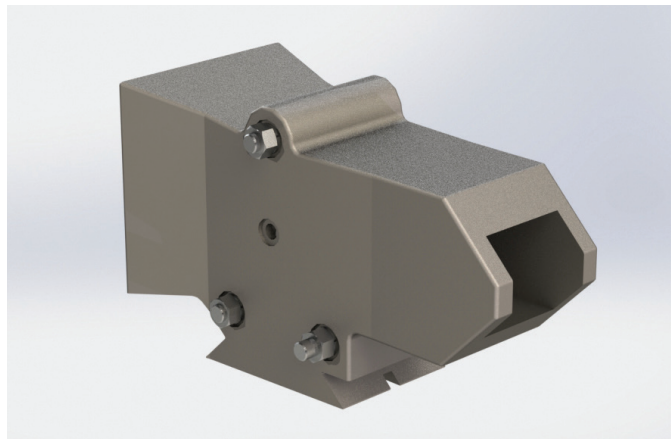


### PRODUCT FEATURES

- Separate insert and box design for maximum flexibility
- Heavy-duty construction for long service life
- Inserts available in several materials

## SPLIT GUIDES

FOR ROUGHING AND INTERMEDIATE MILL STANDS

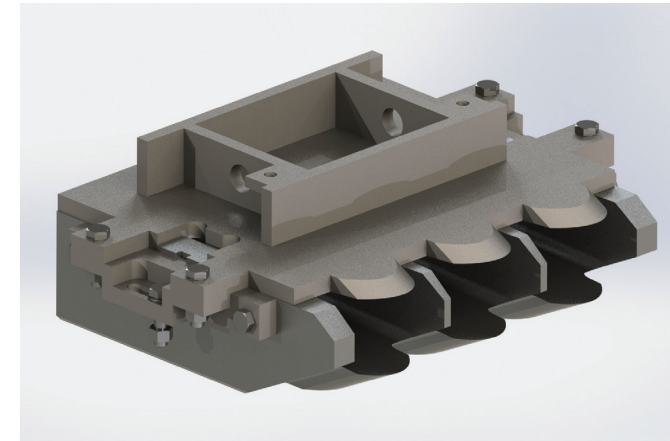


### PRODUCT FEATURES

- Ultra heavy-duty construction for long service life
- Split design allows for spacers to alter bore width

## STATIC DELIVERY GUIDES: LOW-SPEED GANG GUIDES

FOR ROUGHING MILL STANDS

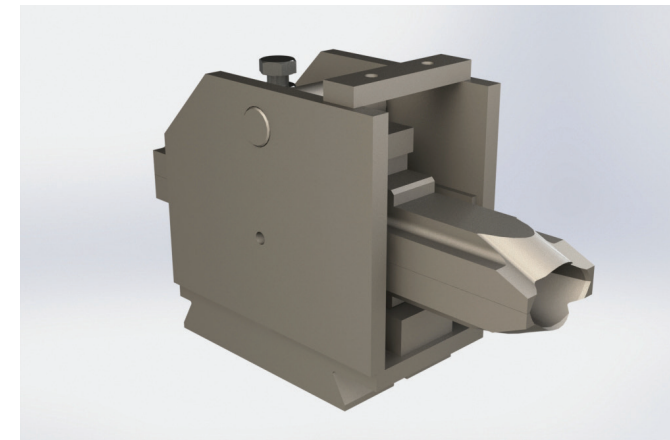


### PRODUCT FEATURES

- Multi-pass gang guide requires no change time for pass changes
- Ultra heavy-duty construction for long service life
- Removable top for cobble protection and service

## STATIC HALF GUIDES

FOR ALL CONVENTIONAL SIZE MILL STANDS

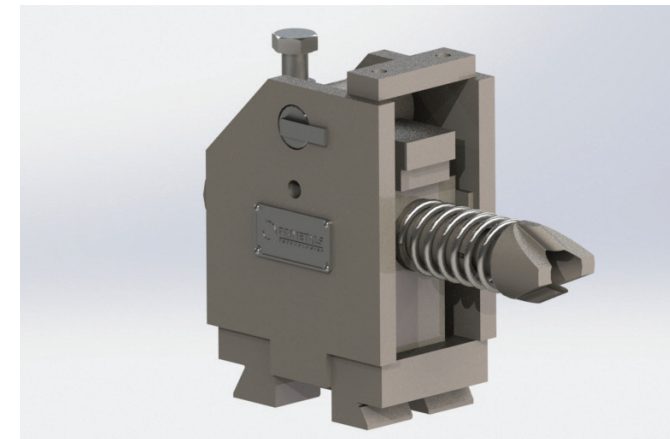


### PRODUCT FEATURES

- Separate insert and box design for maximum flexibility
- Heavy-duty construction for long service life
- Inserts available in several materials

## REBAR GUIDES

FOR INTERMEDIATE AND FINISHING MILL STANDS



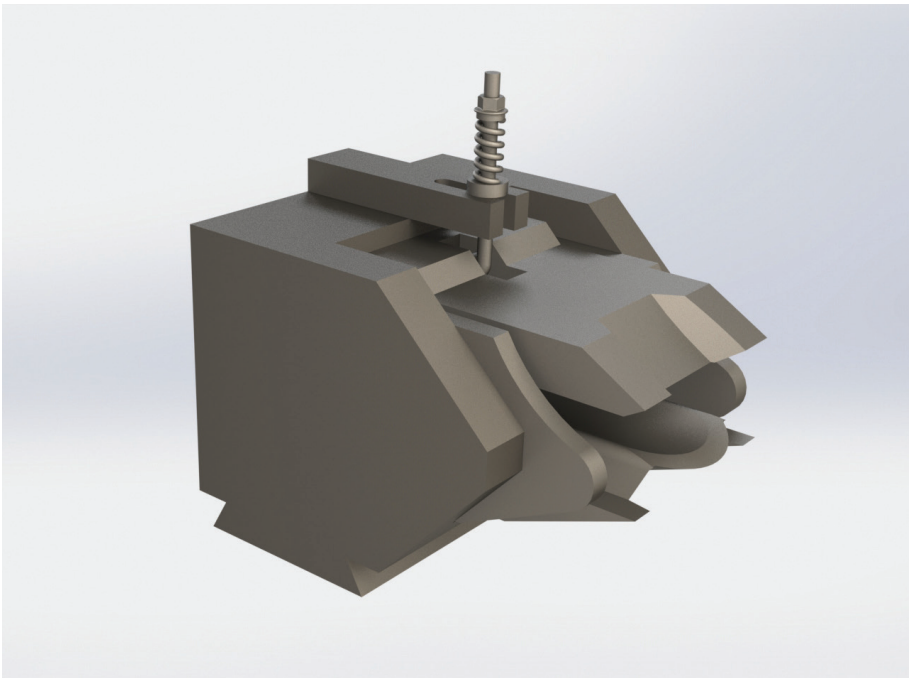
### PRODUCT FEATURES

- Spring-loaded nose to reduce impact and vibration caused by rebar
- Separate insert and box design for maximum flexibility
- Heavy-duty construction for long service life

# STATIC RECEIVING AND DELIVERY GUIDES

## SERIES AS/BS/CS

FOR ROUGHING AND INTERMEDIATE MILL STANDS



BS2 Delivery guide

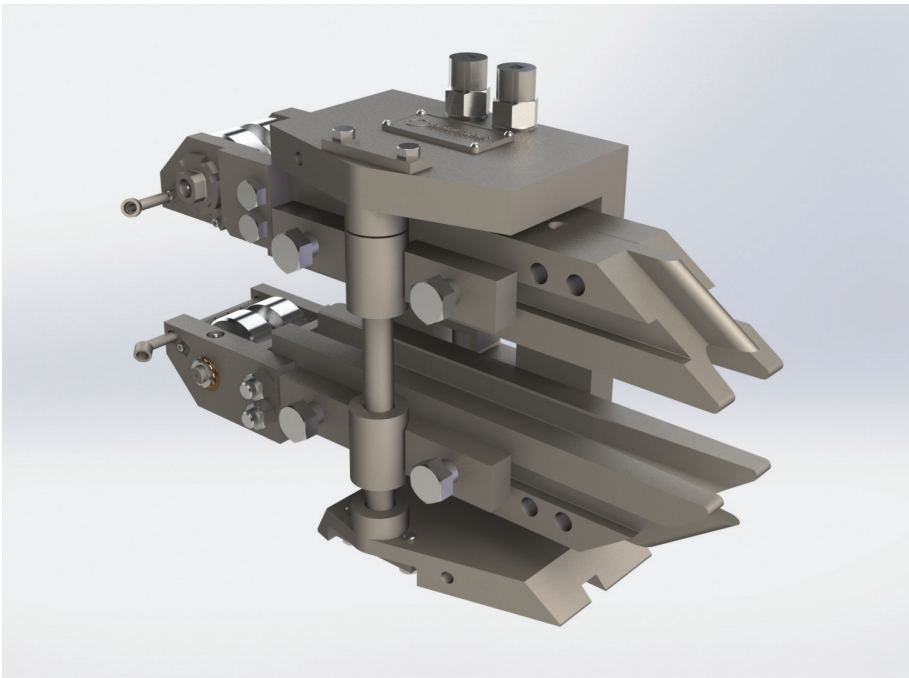
PRODUCT DATA

Maximum Recommended Size (mm)					
Guide Type					
AS1	A	50	-	-	60
	B	-	-	-	30
AS2	A	90	-	-	125
	B	-	-	-	75
AS3	A	150	-	-	200
	B	-	-	-	10
BS1	A	-	60	-	-
	B	-	37	-	-
BS2	A	-	120	-	-
	B	-	64	-	-
BS3	A	-	200	-	-
	B	-	100	-	-
CS1	A	-	-	60	-
	B	-	-	30	-
CS2	A	-	-	120	-
	B	-	-	55	-
CS3	A	-	-	200	-
	B	-	-	75	-

# STATIC DELIVERY GUIDES

## SERIES EPDG/FPDG

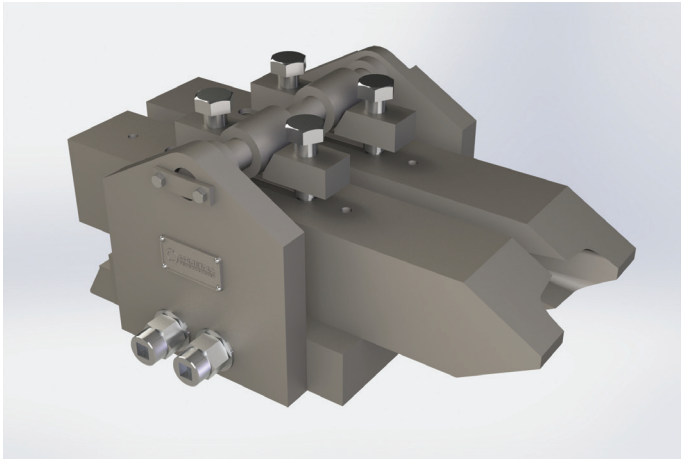
FOR ALL CONVENTIONAL SIZE MILL STANDS



EPDG8 With optional rear rollers

PRODUCT DATA

Maximum Recommended Size (mm)			
Guide Type			
EPDG5	A	127	-
	B	30	-
EPDG8	A	203	-
	B	40	-
EPDG13	A	330	-
	B	50	-
FPDG5	A	-	127
	B	-	30
FPDG8	A	-	203
	B	-	40
FPDG13	A	-	330
	B	-	50



FPDG5 guide

PRODUCT FEATURES

- Specialized guides for flats
- Available in edging and flat pass versions
- Optional rear rollers to reduce scratching
- Adjustable to fit a wide range of product widths
- Custom size ranges and configurations available
- Individual adjustment of inserts



## STATIC RECEIVING GUIDES: HIGH-SPEED COOLING GUIDES

FOR ROD FINISHING MILL STANDS

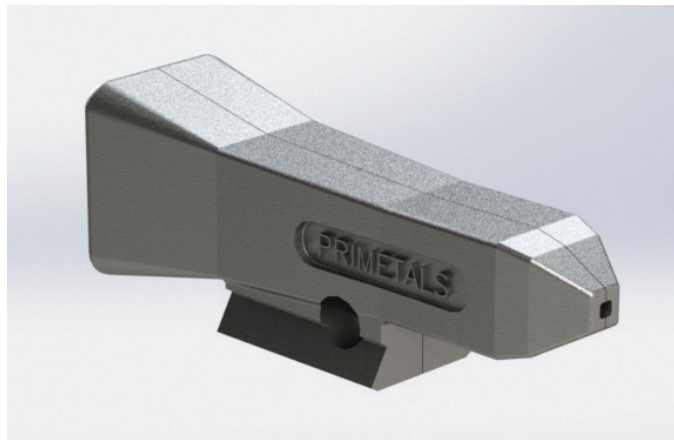


### PRODUCT FEATURES

- Continuous water feed suppresses scale formations for improved surface quality
- Controlled cooling compensates for strain rate heat increase from rolling at high speeds
- Available in a wide range of bore sizes
- Investment cast stainless steel resists wear, pickup and corrosion

## STATIC HALF GUIDES

FOR ROD FINISHING MILL STANDS

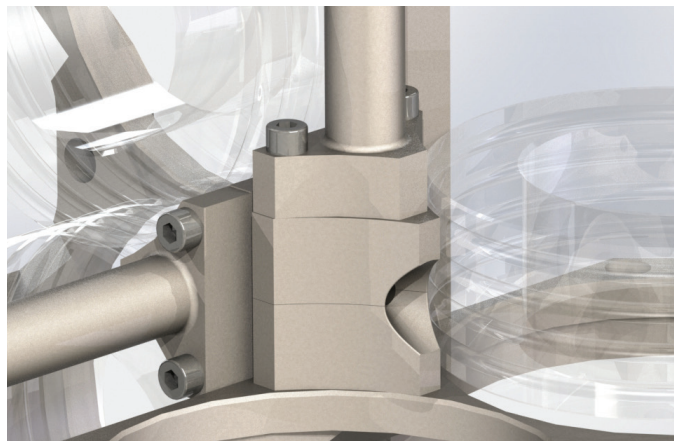


### PRODUCT FEATURES

- Investment cast stainless steel resists wear, pickup and corrosion
- 'X' Clamp guide mounting
- Available in a wide range of bore sizes

## REDUCING/SIZING MILL (RSM) GUIDES

FOR ROD SIZING MILL STANDS

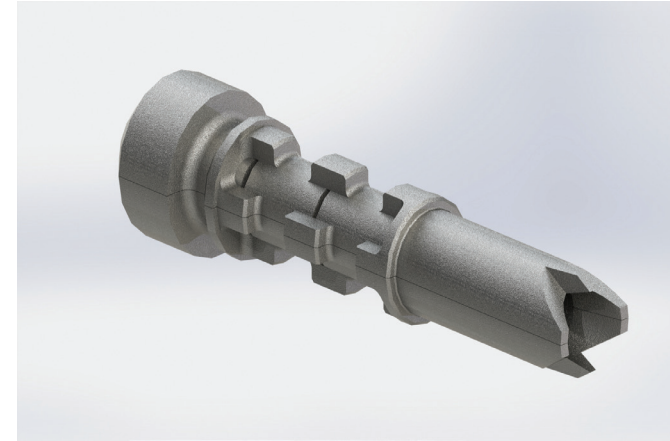


### PRODUCT FEATURES

- Specialty guide located between sizing mill stands
- Investment cast stainless steel resists wear, pickup and corrosion
- Precision bores and mounting features ensure optimum guiding and minimizes scratches and defects

## STATIC DELIVERY GUIDES: HIGH-SPEED COOLING GUIDES

FOR ROD FINISHING MILL STANDS

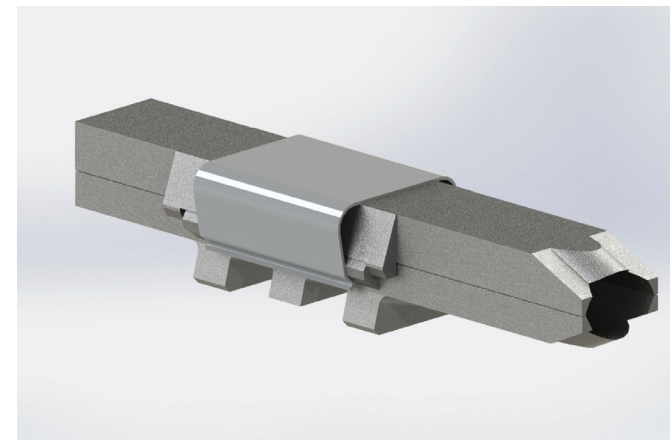


### PRODUCT FEATURES

- Continuous water feed suppresses scale formations for improved surface quality
- Controlled cooling compensates for strain rate heat increase from rolling at high speeds
- Available in a wide range of bore sizes
- Investment cast stainless steel resists wear, pickup and corrosion

## STATIC HALF GUIDES

FOR ROD FINISHING MILL STANDS

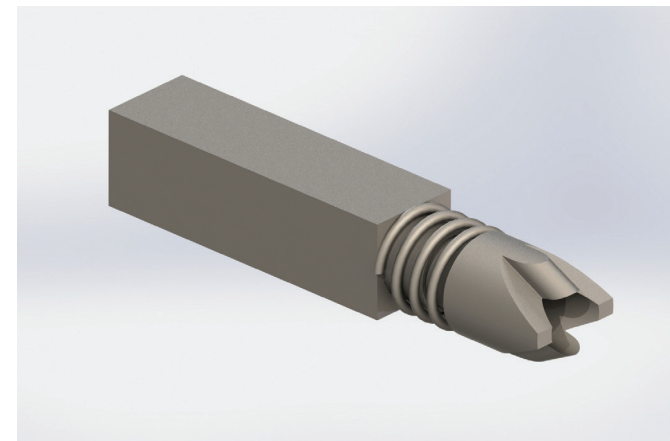


### PRODUCT FEATURES

- Spring clip secures upper half for controlled cobble breakout
- Investment cast stainless steel resists wear, pickup and corrosion
- 'X' Clamp guide mounting
- Available in a wide range of bore sizes

## REBAR GUIDES

FOR ROD FINISHING MILL STANDS

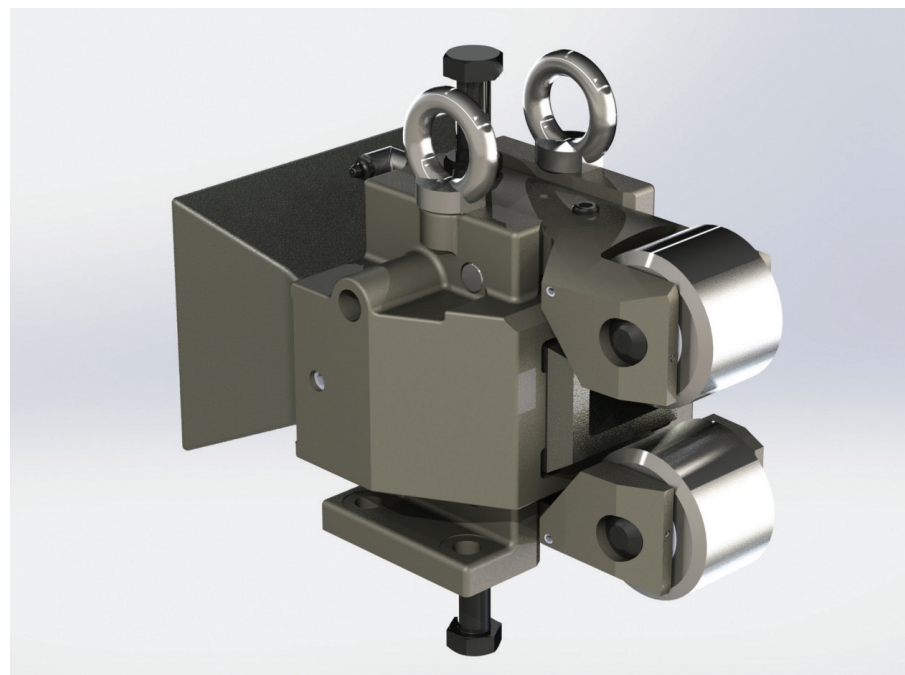


### PRODUCT FEATURES

- Spring loaded nose to reduce impact and vibration caused by rebar
- 'X' Clamp guide mounting
- Stainless steel nosepiece resists wear, pickup and corrosion

## 2-ROLLER STABILIZER ENTRY GUIDES SERIES STAB

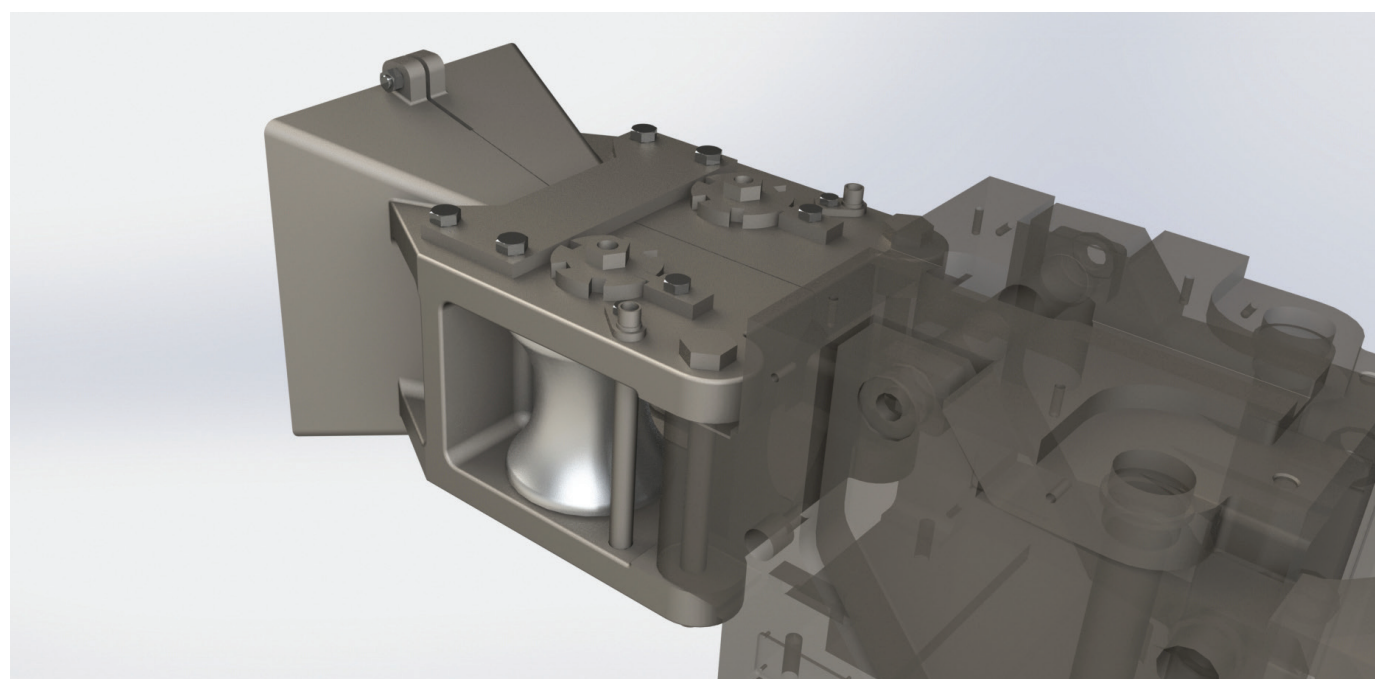
FOR INTERMEDIATE AND FINISHING MILL STANDS



STAB guide with horizontal rollers

### PRODUCT FEATURES

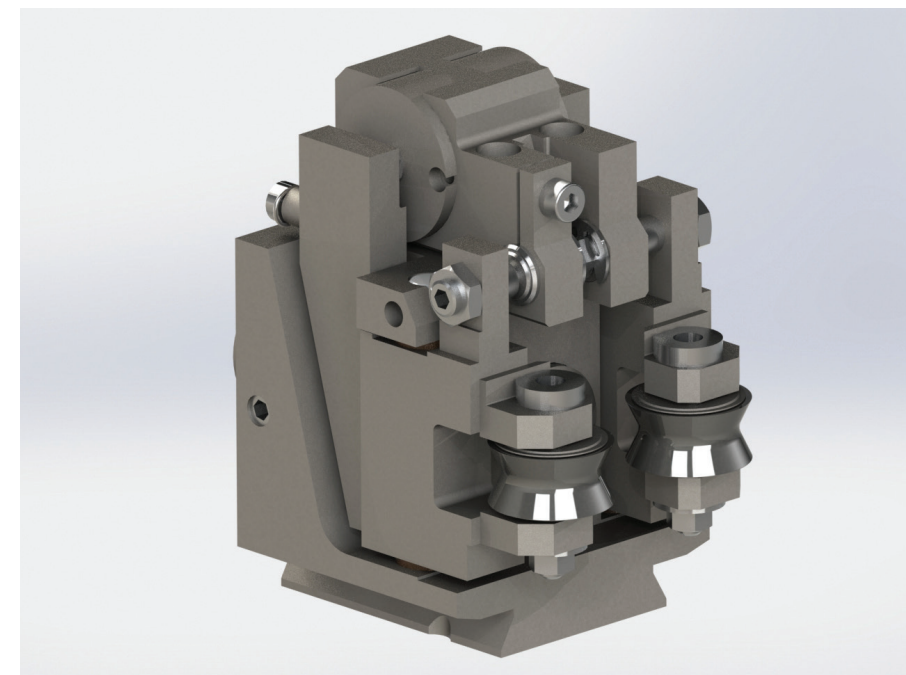
- Individual water cooling for rollers and statics
- Air/oil or grease lubrication
- Variable entry bellmouth sizes
- Individual roller gap adjustment
- Provides additional support and stabilizes stock
- Application specific design
- Direct mount add-on for ERG Series guide
- Available in horizontal or vertical roller configurations



Direct mount add-on for ERG Series guide, vertical roller configuration shown.

## 2-ROLLER (HIGH-SPEED) ENTRY GUIDES SERIES PSX

FOR HIGH SPEED WIRE ROD MILL FLAW DETECTORS



RE-20 PSX-2 guide

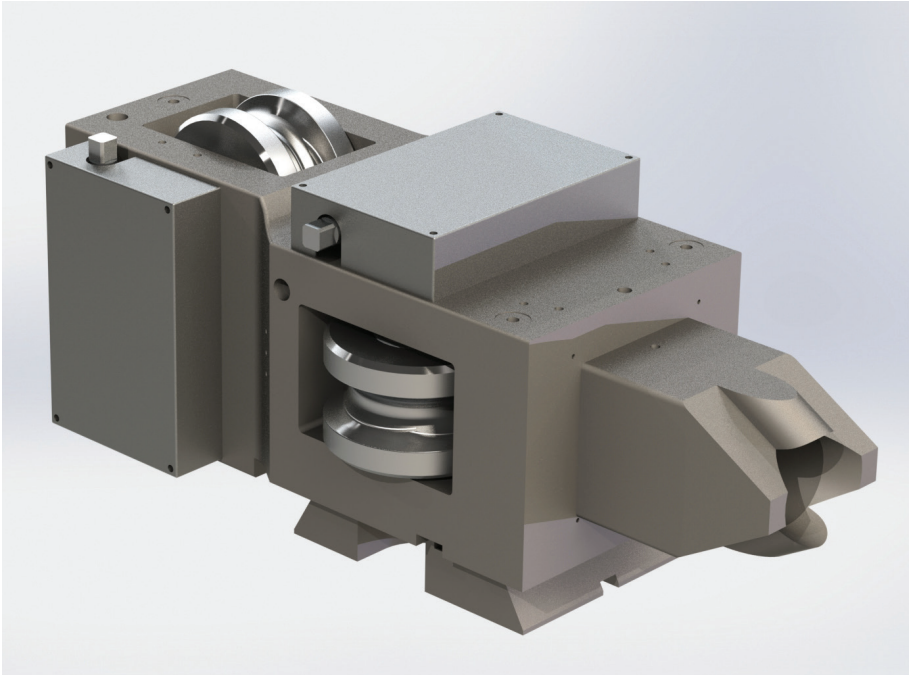
### PRODUCT FEATURES

- Individual water cooling for rollers
- Air/oil or grease lubrication
- Single point symmetrical roller stop adjustment
- Pneumatic clamping to desired roller gap adjustment
- Variable roller force for flutter control
- Stabilizes section for improved flaw detector performance



# 4-ROLLER SIZING DELIVERY GUIDES SERIES SG


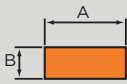
FOR FINISHING MILL STANDS



PRODUCT FEATURES

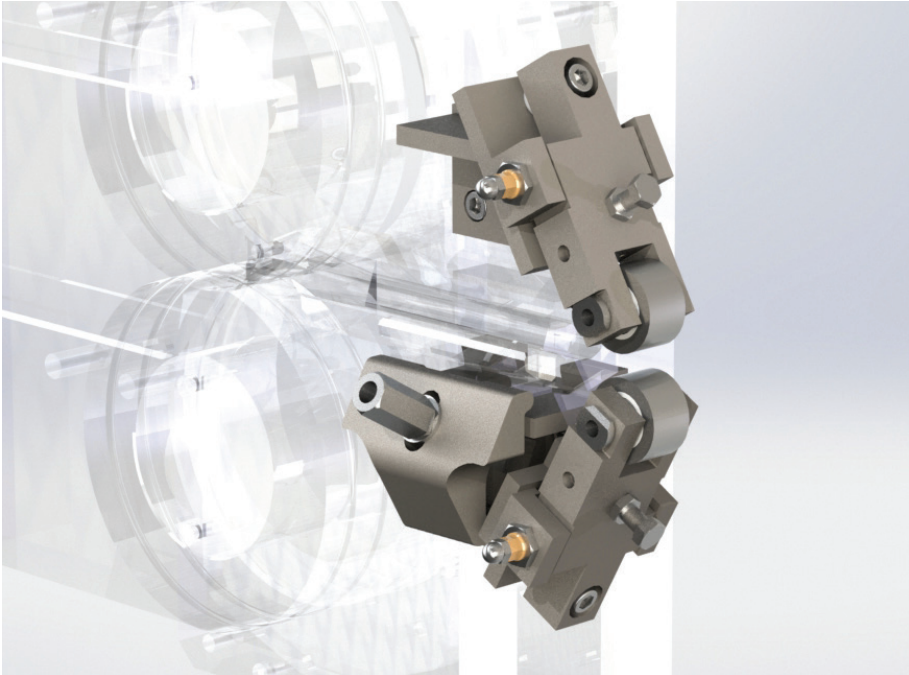
- Individual water cooling for rollers
- Air/oil or grease lubrication
- Separate single point symmetrical roller adjustment for front and rear rollers
- Provides minor sizing to stock in two planes
- Replaceable inserts
- Available for round applications up to 50 mm in diameter
- Available for flat applications up to 100 mm wide

PRODUCT DATA

Maximum Recommended Size (mm)			
Guide Type			
4SG3	A	20	-
	B	-	-
4SG4	A	32	-
	B	-	-
4SG5	A	50	-
	B	-	-
4SG50	A	-	50
	B	-	30
4SG100	A	-	100
	B	-	30

# 2-ROLLER ANTI FLUTTER GUIDES SERIES AF

FOR ROD FINISHING MILL STANDS

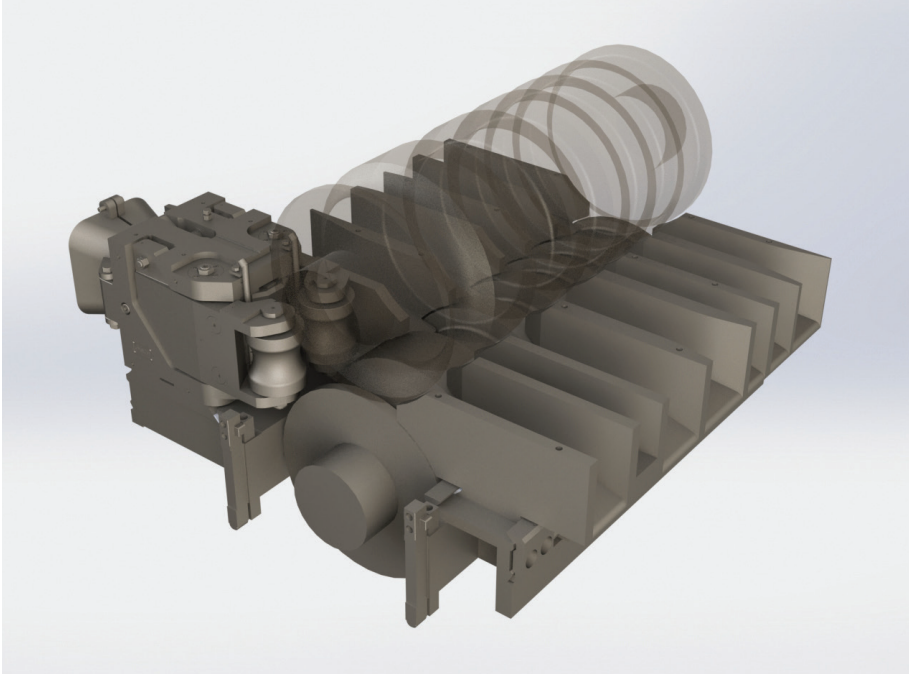


PRODUCT FEATURES

- Individual water cooling for rollers
- Individual roller gap adjustment
- Provides additional support to reduce flutter in stock

# REVERSING STAND GUIDES SERIES RG

FOR REVERSING MILL STANDS

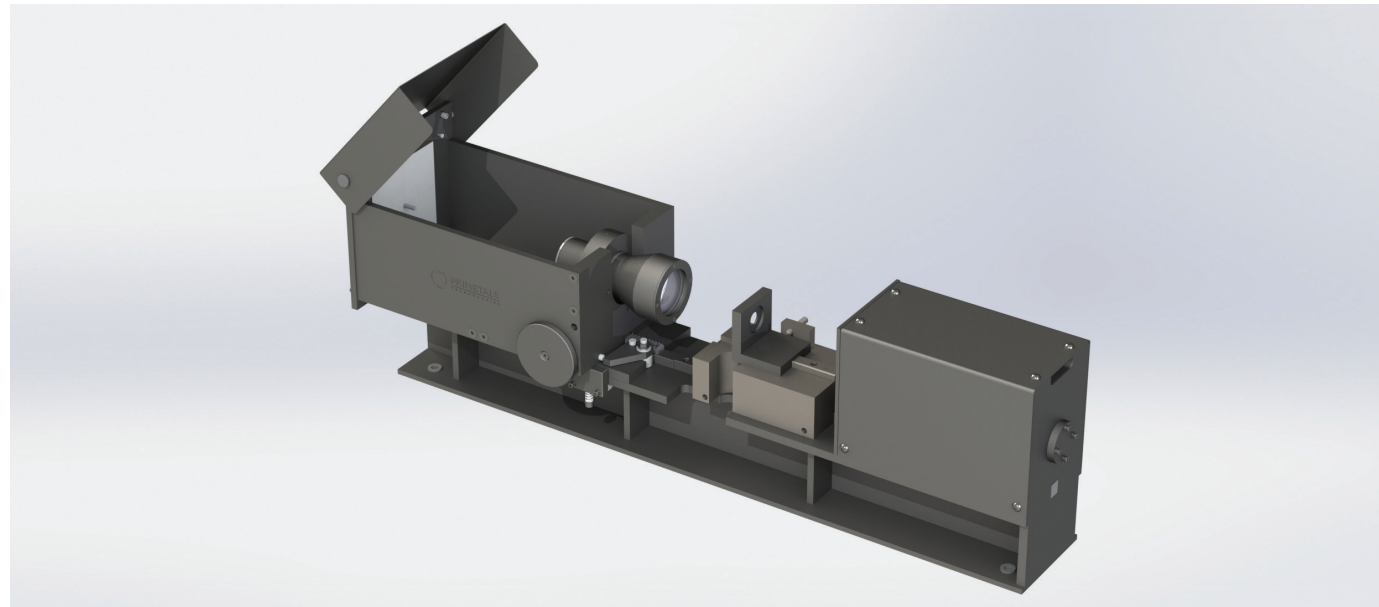


PRODUCT FEATURES

- Multi-pass design accommodates all grooves
- Application specific design
- Shown with ERG Series roller guide
- Other configurations available

## BENCH OPTICS LARGE

FOR INTERMEDIATE, PRE-FINISHING, AND FINISHING MILLS



The large bench optics system is designed to enable extremely accurate offline setting of roller guides. Heights and partings of rollers can typically be set within  $\pm 0.05$  mm of theoretical incoming stock dimensions. It is designed to work in conjunction with a wide variety of Primetals Technologies guides with rollers smaller than 90 mm, including the USX finishing mill system. It is available with both 3x and 5x magnification lenses for enhanced flexibility. The components are engineered for maximum precision, and will increase productivity by ensuring guide alignment accuracy and repeatability.

### FEATURES

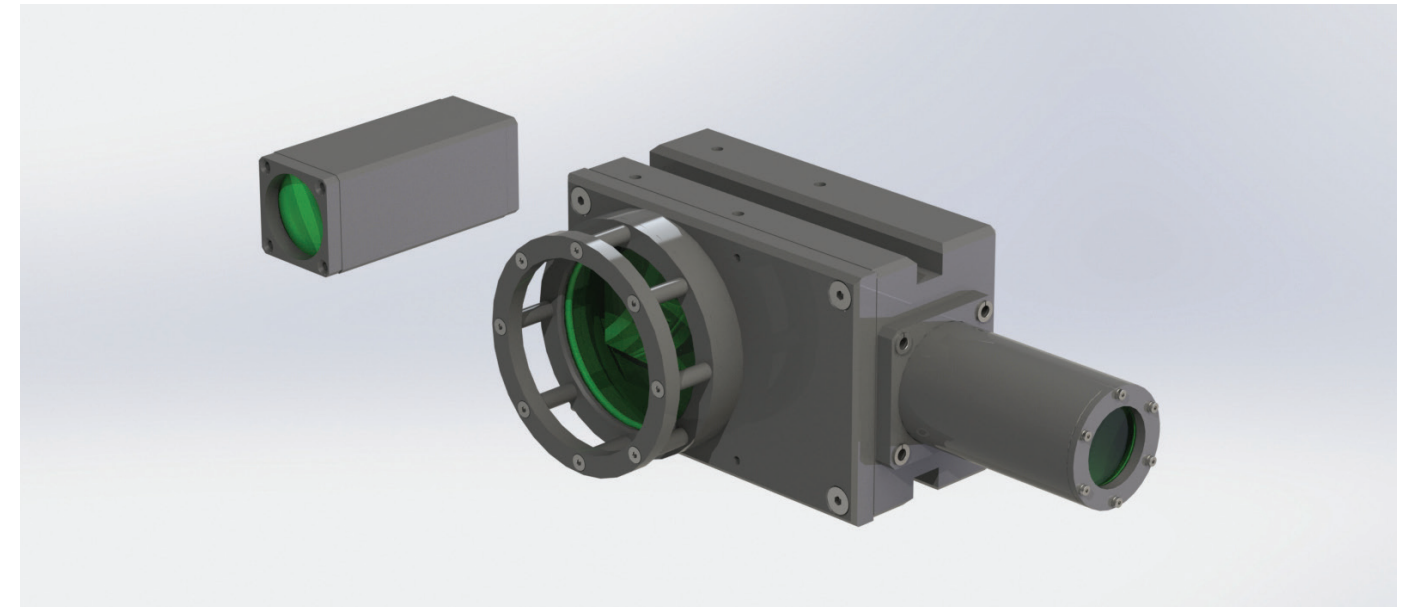
- Guide setting accuracy  $\pm 0.05$  mm (0.002") optimizes guiding for excellent finished product quality
- Highest optical quality results in clearest, sharpest image with resolution of 0.028 mm (0.001")
- 5x lens can view rounds up to 50 mm, ovals up to 50 mm full width
- 3x lens can view rounds up to 84 mm, ovals up to 84 mm full width
- Mylar templates provided with passes for each product size

### MAIN BENEFITS

- Precise guide setting facilitates rolling at world's highest speed
- Accurate guide setting reduces forces on critical components for longest operational service life
- Facilitates quick and simple guide setting (off-line), maximizing mill utilization
- Fewer product defects
- Reduction in rejected materials
- Higher quality finished product

## PORTABLE OPTICS LARGE

FOR INTERMEDIATE AND PRE-FINISHING MILLS



The large portable optics system is designed to enable extremely accurate online setting of roller guide brackets and restbars. The bracket or restbar position can typically be set within  $\pm 0.1$  mm of theoretical pass centerline. It is designed to work in conjunction with the larger Primetals Technologies roller guides utilized in some intermediate and pre-finishing mills. The components are engineered for maximum precision, and will increase productivity by ensuring guide alignment accuracy and repeatability.

### FEATURES

- Views rounds up to 48 mm, ovals up to 48 mm full width

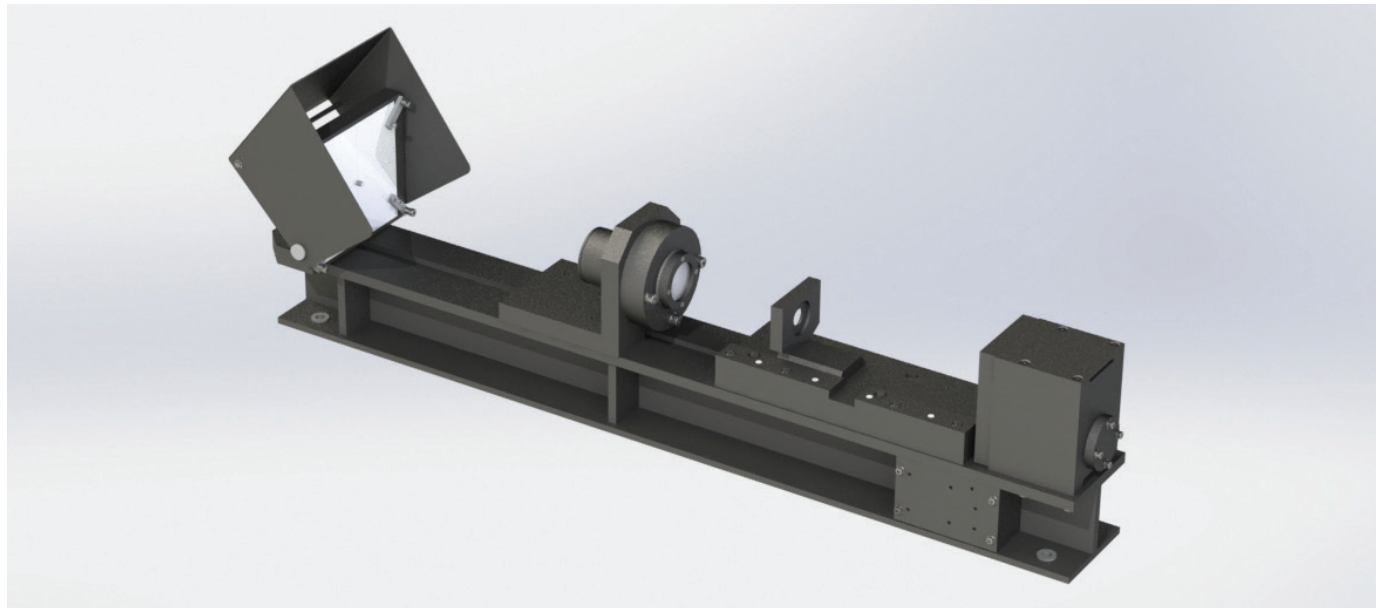
### MAIN BENEFITS

- Detects the effects of "Crossed Rolls" eliminating the production of defective product
- Accurate guide centering eliminates hooked front ends, minimizing cobbles
- Confirms symmetry of roll parting, eliminates turned up or down front ends, minimizes cobbles
- Perfect product guiding minimizes scratches and defects in the finished product
- Higher quality finished product
- Reduction in rejected materials



## BENCH OPTICS SMALL

FOR ROD FINISHING MILLS



The small bench optics system is designed to enable extremely accurate offline setting of roller guides. The 5x magnification lens facilitates the heights and partings of rollers to be typically set within  $\pm 0.05$  mm of theoretical incoming stock dimensions. It is designed to work in conjunction with the Primetals Technologies USX finishing mill guide system, but is also available to work with other guide systems. The components are engineered for maximum precision, and will increase productivity by ensuring guide alignment accuracy and repeatability.

### FEATURES

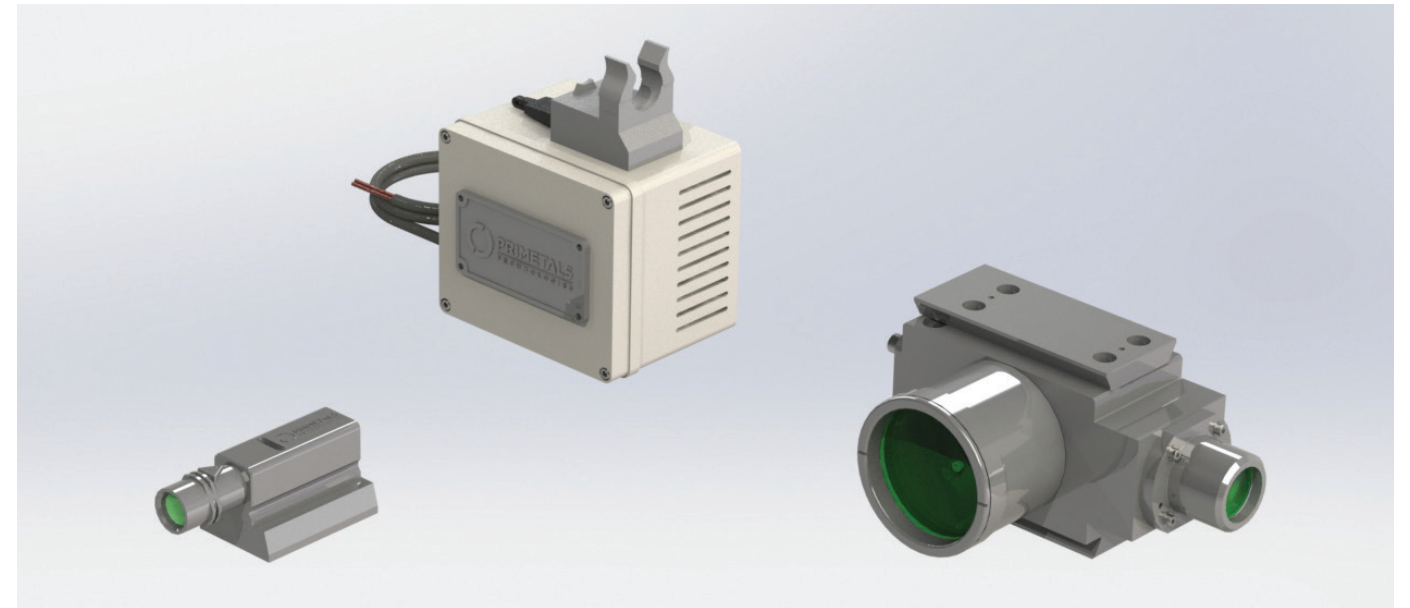
- Guide setting accuracy  $\pm 0.05$  mm (0.002") optimizes guiding for excellent finished product quality
- Highest optical quality results in clearest, sharpest image with resolution of 0.028 mm (0.001")
- View rounds up to 40 mm, ovals up to 40 mm full width
- Mylar templates provided with passes for each product size

### MAIN BENEFITS

- Precise guide setting facilitates rolling at world's highest speed
- Accurate guide setting reduces forces on critical components for longest operational service life
- Facilitates quick and simple guide setting (off-line), maximizing mill utilization
- Fewer product defects
- Reduction in rejected materials
- Higher quality finished product

## PORTABLE OPTICS SMALL

FOR ROD FINISHING MILLS



The small portable optics system is designed to enable extremely accurate online setting of roller guide brackets. The bracket position can typically be set within  $\pm 0.1$  mm of theoretical pass centerline. It is designed to work in conjunction with the Primetals USX finishing mill guide system, but is also available to work with other guide systems. The components are engineered for maximum precision, and will increase productivity by ensuring guide alignment accuracy and repeatability.

### FEATURES

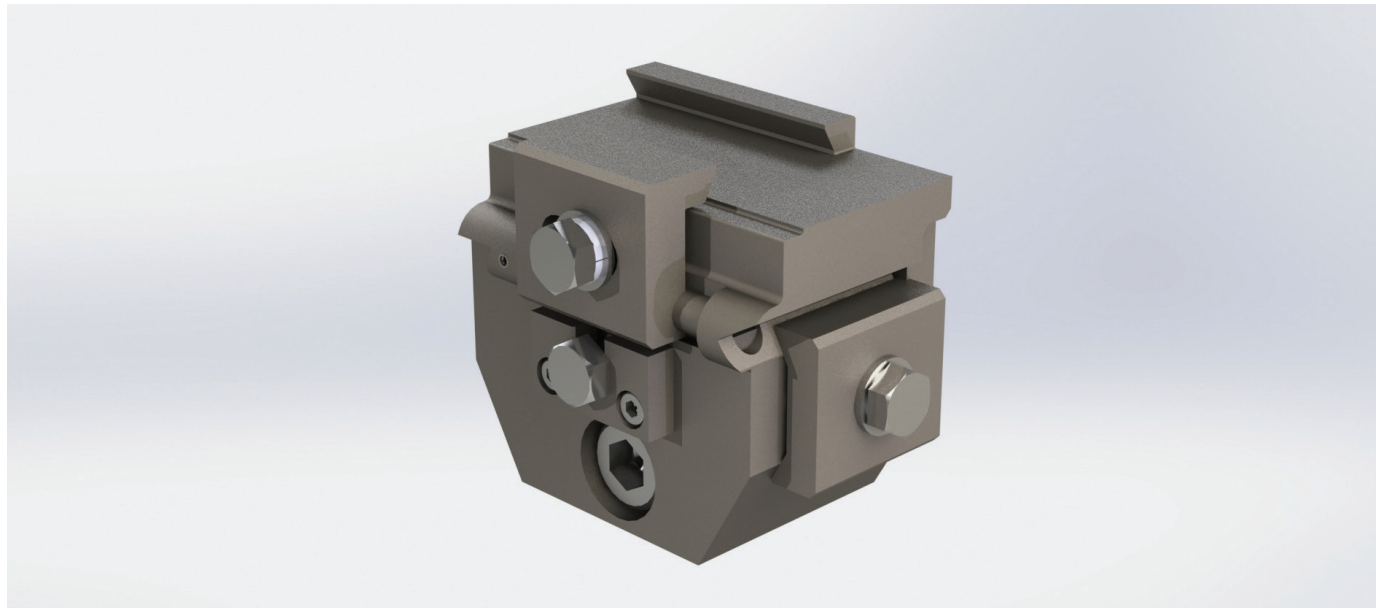
- Viewing scope securely clamped in place with zero clearance gives total repeatability
- Guide takes exactly the same setting as the viewing scope, improving product quality
- Operator has both hands available for quick and precise adjustment of guide mounting bracket
- View rounds up to 34 mm, ovals up to 34 mm full width

### MAIN BENEFITS

- Detects the effects of "Crossed Rolls" eliminating the production of defective product
- Accurate guide centering eliminates hooked front ends, minimizes cobbles
- Confirms symmetry of roll parting, eliminates turned up or down front ends, minimizes cobbles
- Perfect product guiding minimizes scratches and defects in the finished product
- Higher quality finished product
- Reduction in rejected materials

## 'X'-CLAMP GUIDE MOUNTING

FOR ROD FINISHING MILL STANDS



'X'-clamp guide mounting is available to fit all finishing mill stands, and can be customized to fit many competitors' finishing mill stands. They are designed to precisely position the guide on the centerline of pass, and will increase productivity by increased alignment accuracy, repeatability, and durability.

### FEATURES

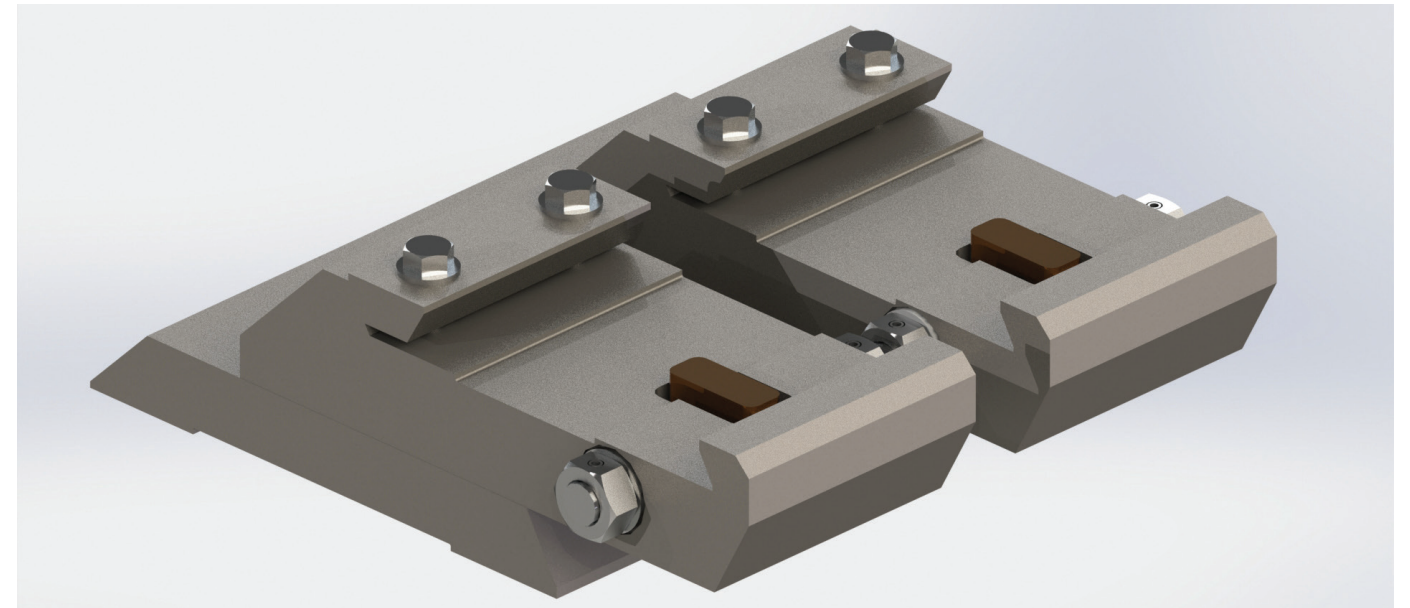
- Spring loaded clamp minimizes downtime when changing sizes
- Operator has both hands available for quick and precise adjustment of guide mounting bracket
- All fasteners have same size hexagon for quick and easy adjustment with a single wrench
- High-strength stainless steel construction resists fatigue, wear and corrosion

### MAIN BENEFITS

- Secure clamping of the roller entry guide with zero clearance facilitates optimum guiding
- Guide takes exactly the same setting as the portable optics viewing scope, improving product quality
- 'X'-Clamp mounting eliminates wear and alignment errors associated with conventional key mounting
- Precise and reliable guide location provides exceptional service life at highest rolling speeds

## GUIDE MOUNTING

FOR ALL CONVENTIONAL SIZE MILL STANDS



Guide mounting is available to suit any guide on any rolling mill stand, conventional or housingless. They are designed for maximum durability and are available in fixed, fine pass adjustable, and multi-pass designs.

### FEATURES

- Fine traverse adjustment for accurate groove alignment
- Interfaces with portable precision alignment system for intermediate and finishing stands
- Rigid assembly for long-term operation
- Long service life of critical components
- Quick and precise alignment maximizes rolling time and performance
- Constructed from durable materials for long life

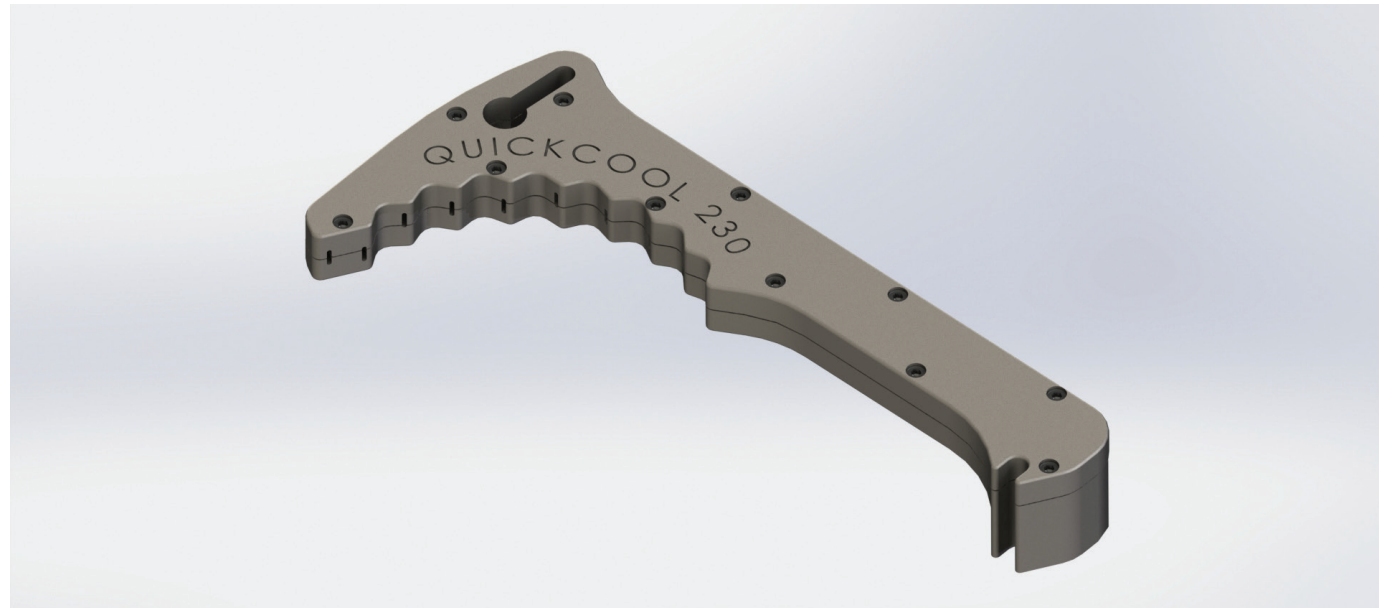
### MAIN BENEFITS

- Durable materials for the most demanding mill conditions
- Quick and simple guide changes
- Replaceable components most susceptible to damage



## QUICKCOOL WATER HEADERS

FOR ALL FINISHING MILL STANDS



QuickCool™ water headers are available to fit all finishing mill stands, and can be customized to fit many competitors' finishing mill stands. They are designed to maximize productivity and efficiency by enhancing cooling efficiency and increasing roll life.

### FEATURES

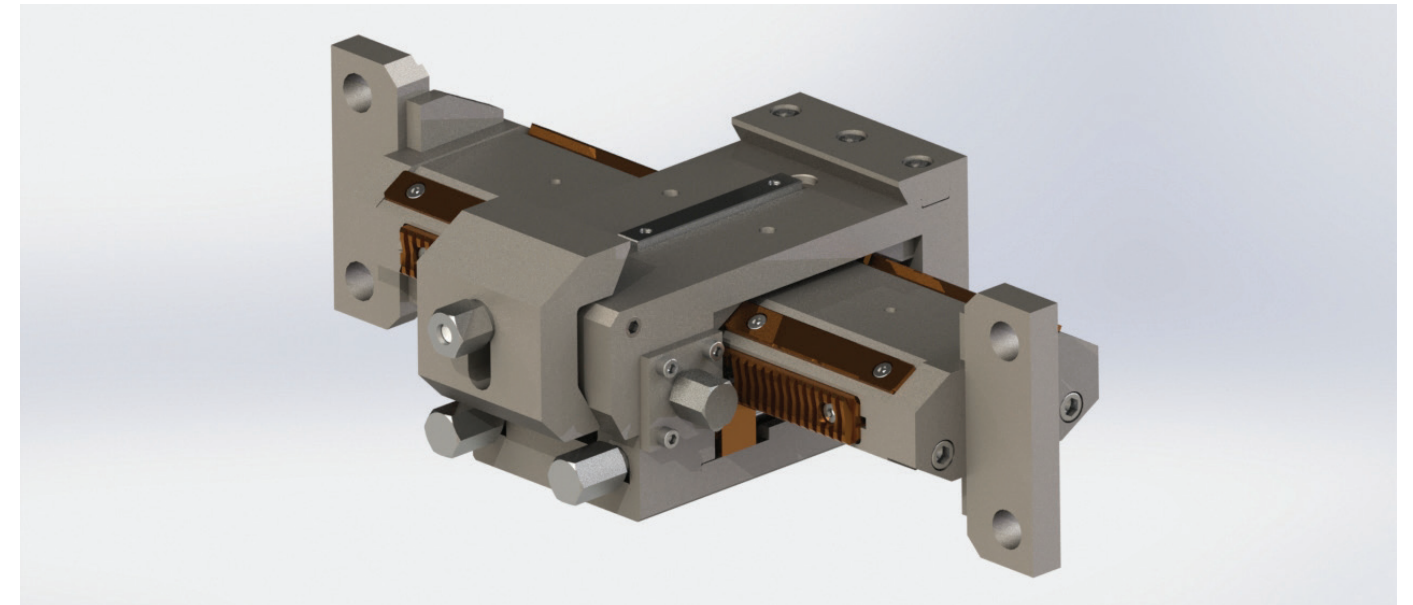
- Special surface coating eliminates build-up of unwanted deposits and corrosion
- Split design for quick and easy cleaning (including easy removal of debris if necessary)
- Positive O-ring seal at joint face, eliminates problems with pipe threads

### MAIN BENEFITS

- Optimum cooling efficiency extends roll life, providing more "prime tons" per campaign
- Less roll wear gives better-toleranced rolled product with smoother surface finish
- Quick change design minimizes mill downtime

## RESTBARS

FOR ALL CONVENTIONAL SIZE MILL STANDS



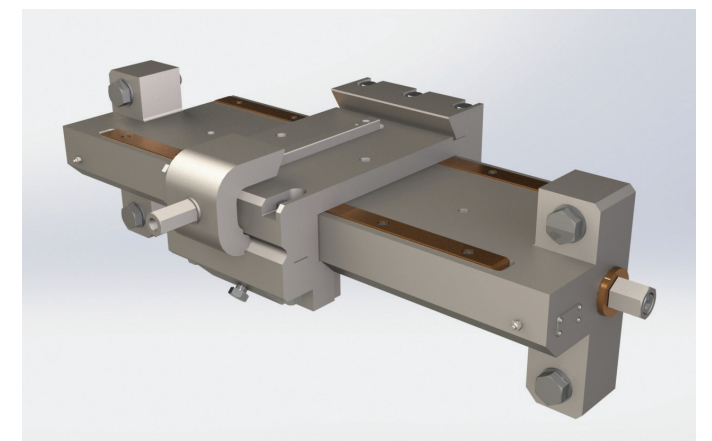
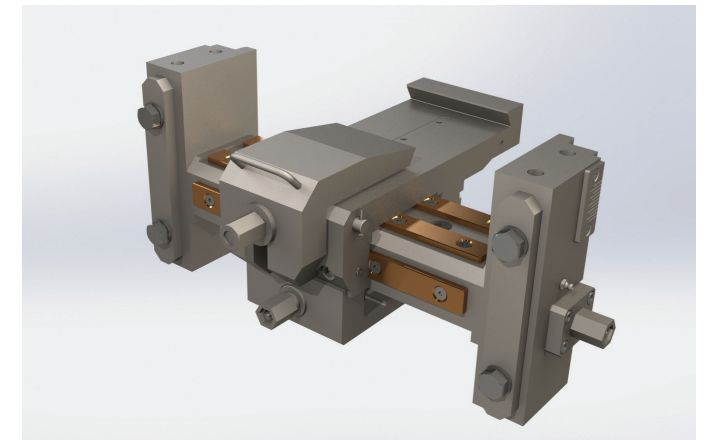
Restbars are available to suit any rolling mill stand, conventional or housingless. They are designed for maximum durability and are available in a wide variety of sizes and styles.

### FEATURES

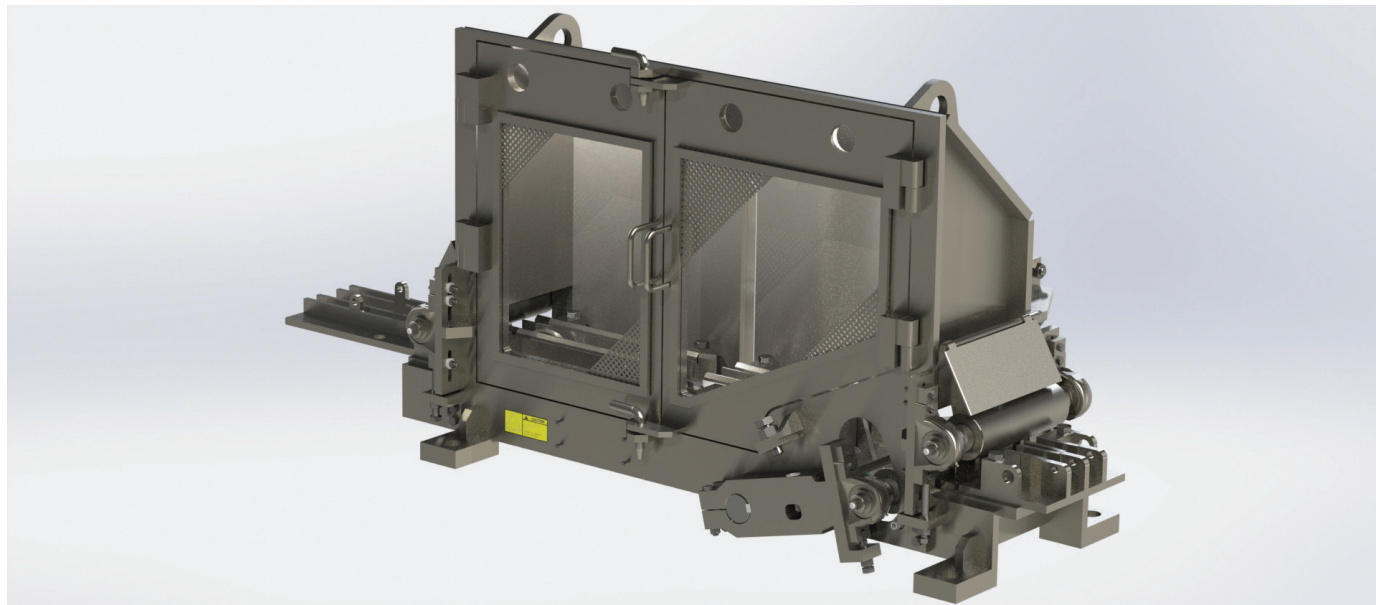
- Fine traverse adjustment for accurate groove alignment
- Rigid assembly for long-term operation
- Long service life of critical components
- Sealed bearing locations for minimized maintenance
- Critical wear components are replaceable for maximum service life

### MAIN BENEFITS

- Durable materials for the most demanding mill conditions
- Both height and traverse adjustment for all guide sizes
- Rigid mounting on both horizontal and vertical stands
- Quick and simple guide changes
- Repeatable and dependable setup and adjustment



## LOOPERS (SIDE/UP/MULTI)



Uploopers and sideloopers are customized to suit any looper rolling requirement, and are available for single-strand as well as multi-strand rolling. They are designed to maximize finished product quality by improving tension regulation and reduction of scratching.

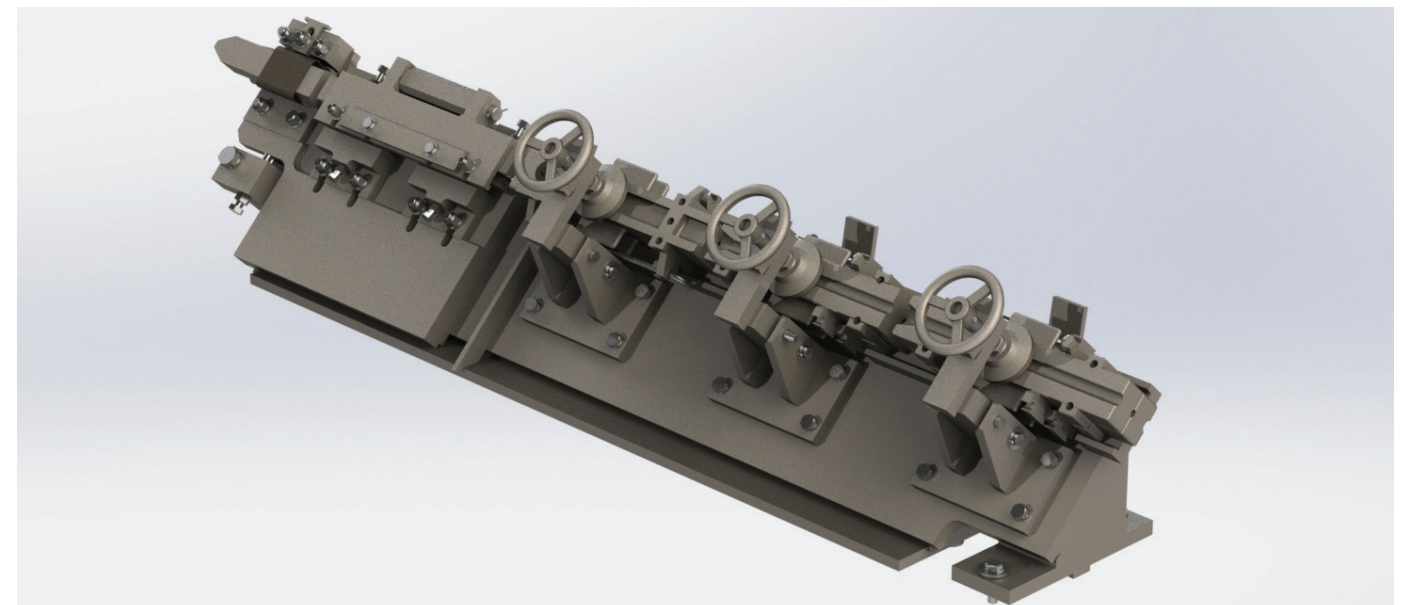
### FEATURES

- Rollers are available in various materials and are easy to maintain and replace
- Snap shears can be incorporated for cobble control
- Uplooper can be transferred or rotated for maintenance access
- Heavy-duty fabricated steel construction for various installation requirements

### MAIN BENEFITS

- Controlled area for cobbles to protect mill equipment and personnel
- Controlled tension regulation for improved product quality
- Rollers and trough selected to minimize potential scratching

## BREAKOUT BOXES



Breakout boxes are available to suit existing Primetals Technologies high-speed mills and can be customized to fit many competitors' high speed mills. They are designed to maximize durability and productivity, and can help to reduce cobbles and improve finished product quality.

### FEATURES

- Breakout box and equalization troughs are carried on the same robust fabrication to optimize alignment
- Precisely manufactured guide bores minimize scratches and defects in the finished product
- Counter-current stripper nozzle prevents carry-over of water into the equalization troughs
- Stainless steel delivery guides, inserts and equalization troughs resist wear, pick-up and corrosion
- Dual bore stainless steel equalization troughs for longest operational service life
- Robust pivoting 'G'-clamp system provides secure location and quick change of equalization troughs

### MAIN BENEFITS

- Precise alignment of delivery guides, inserts and equalization troughs reduces cobbles
- Quick and simple guide mounting minimizes downtime at size change
- Variable counter-balance weights facilitate controlled cobble breakout, which helps to reduce the chance of equipment damage



## WATERBOXES, COOLING AND STRIPPING NOZZLES



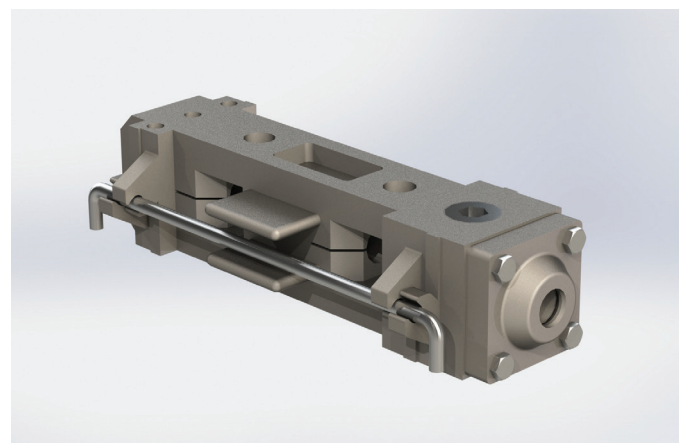
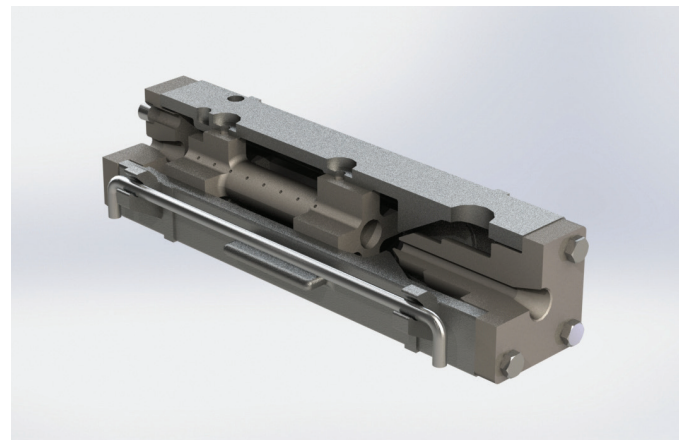
Waterboxes are available to suit a wide range of product cooling and special requirements, in both fixed and side-shiftable configurations. Cooling and stripping nozzles within the waterbox are available in a wide range of bore sizes and lengths. All waterbox components are designed to maximize efficiency and reliability while minimizing maintenance.

### FEATURES

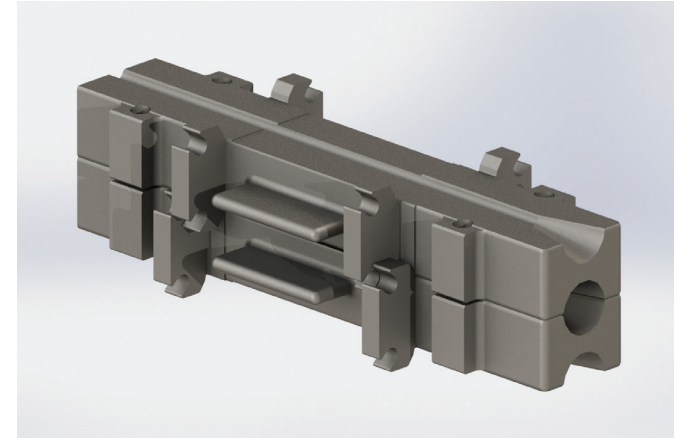
- Nozzles are made of stainless steel for exceptionally long life
- A range of nozzle bore sizes to accommodate all rod and bar sizes at finishing speeds up to 150 m/s

### MAIN BENEFITS

- Nozzle design exclusive to Primetals Technologies, with a longitudinal split allows nozzles to be opened quickly on a hinged pivot for inspection and cleaning
- Nozzle headers are designed to allow rapid nozzle replacement while ensuring excellent alignment of nozzles within boxes
- Modular design means low inventory of spare parts



## EQUALIZATION TROUGHS



Dual bore equalization troughs are available in a wide range of bore size combinations and lengths. They are designed to help maximize efficiency and service life, while reducing the number of stocked parts required.

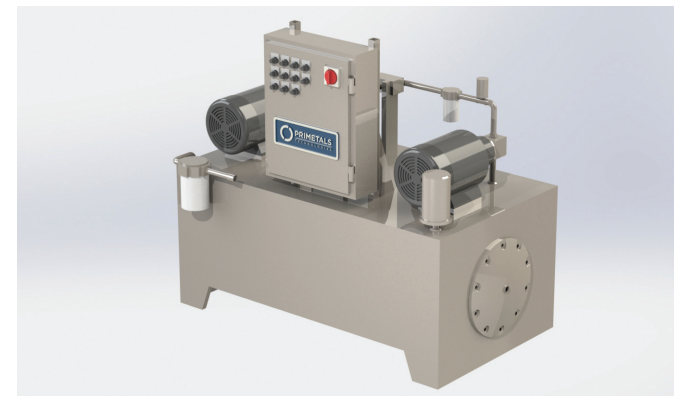
### FEATURES

- Stainless steel investment castings with precisely machined bores resist wear, pick-up and corrosion
- Dual bore design provides longest operational service life at highest rolling speeds
- Simple and rigid clamping and mounting design

### MAIN BENEFITS

- Dual bore design and simple mounting reduces down time at size change
- Split half design facilitates rapid cobble removal and easy on-line inspection
- Provides precise alignment with process functionality

## AIR/OIL SYSTEMS



The Primetals Technologies air/oil system is designed to maximize productivity and reduce operating costs by enhancing the reliability and service life of connected components.

### FEATURES

- Twin pump system (one operational, one standby)
- Dual filtration system (at filling point and delivery line)
- 24 volt DC control voltage
- Indicator lamps, selector switches and instrumentation gauges for easy fault-finding diagnosis
- Clean out covers and large access panel for easy maintenance

### MAIN BENEFITS

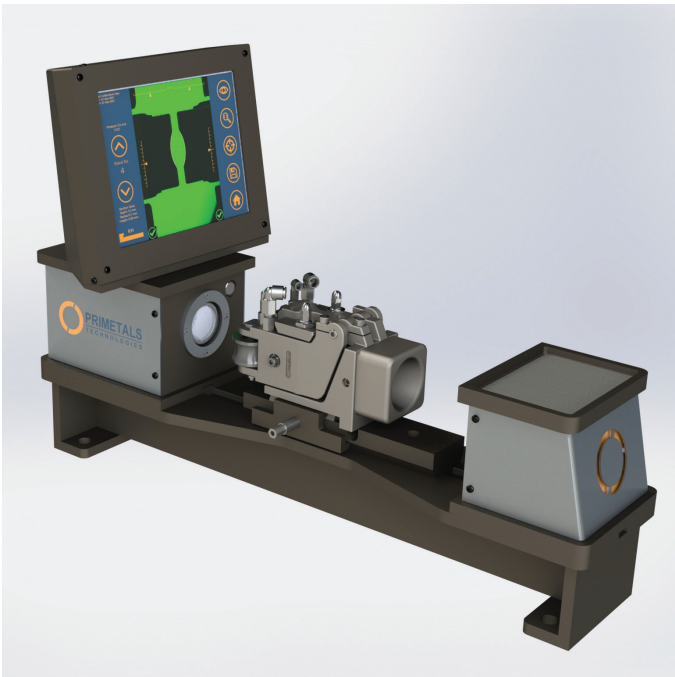
- Provides longest operational service life of critical components at highest rolling speeds
- Lubricates up to 460 points
- Pre-programmed PLC controller
- Quick and easy access to PLC controller, pumps and filters



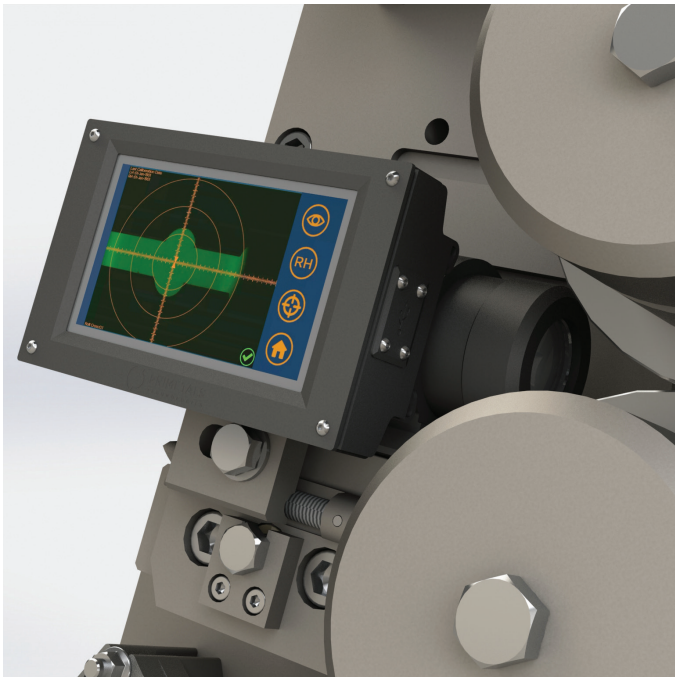
# INNOVATIVE TECHNOLOGIES

## ADVANCED OPTICS SYSTEM

COMPUTERIZED OPTICS FOR FINISHING MILL STANDS



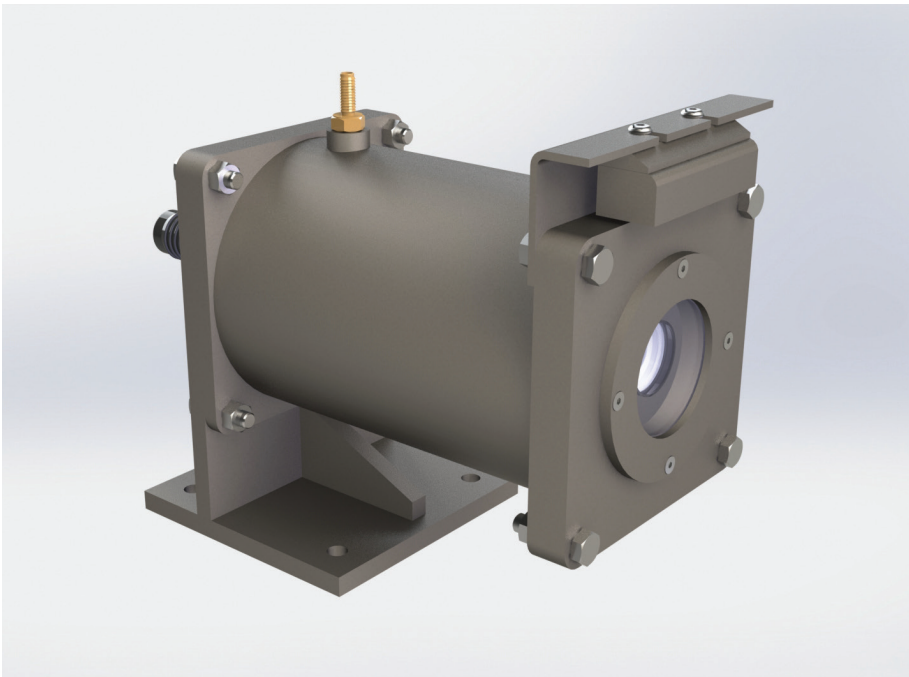
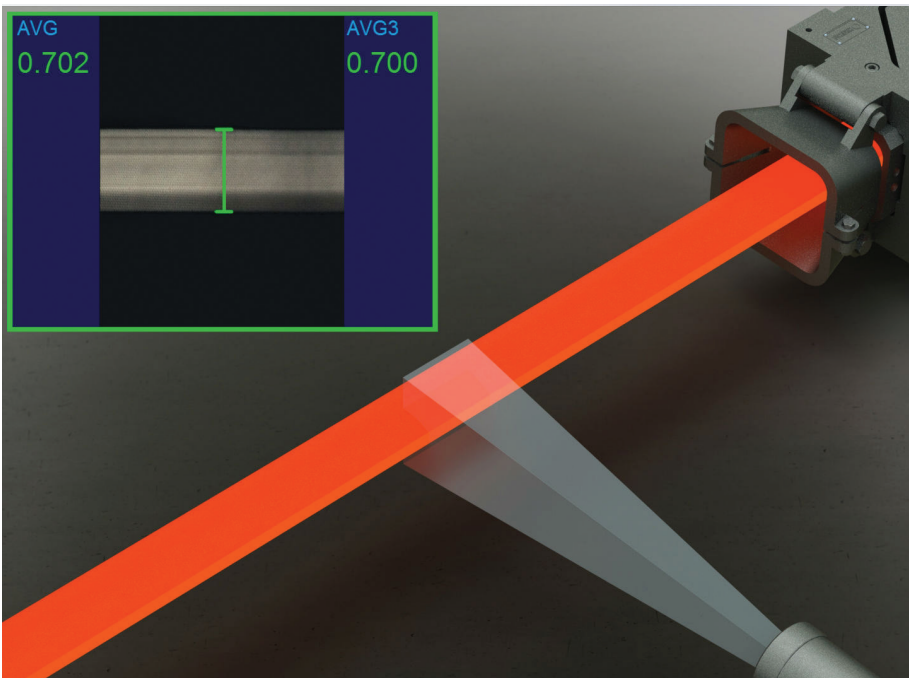
Advanced bench optics system setting USX guide



Advanced portable optics on 230 V-mill stand

## BAR HEIGHT SYSTEM

REAL TIME CONTINUOUS BAR HEIGHT MEASUREMENT FOR INTERMEDIATE AND FINISHING MILL STANDS

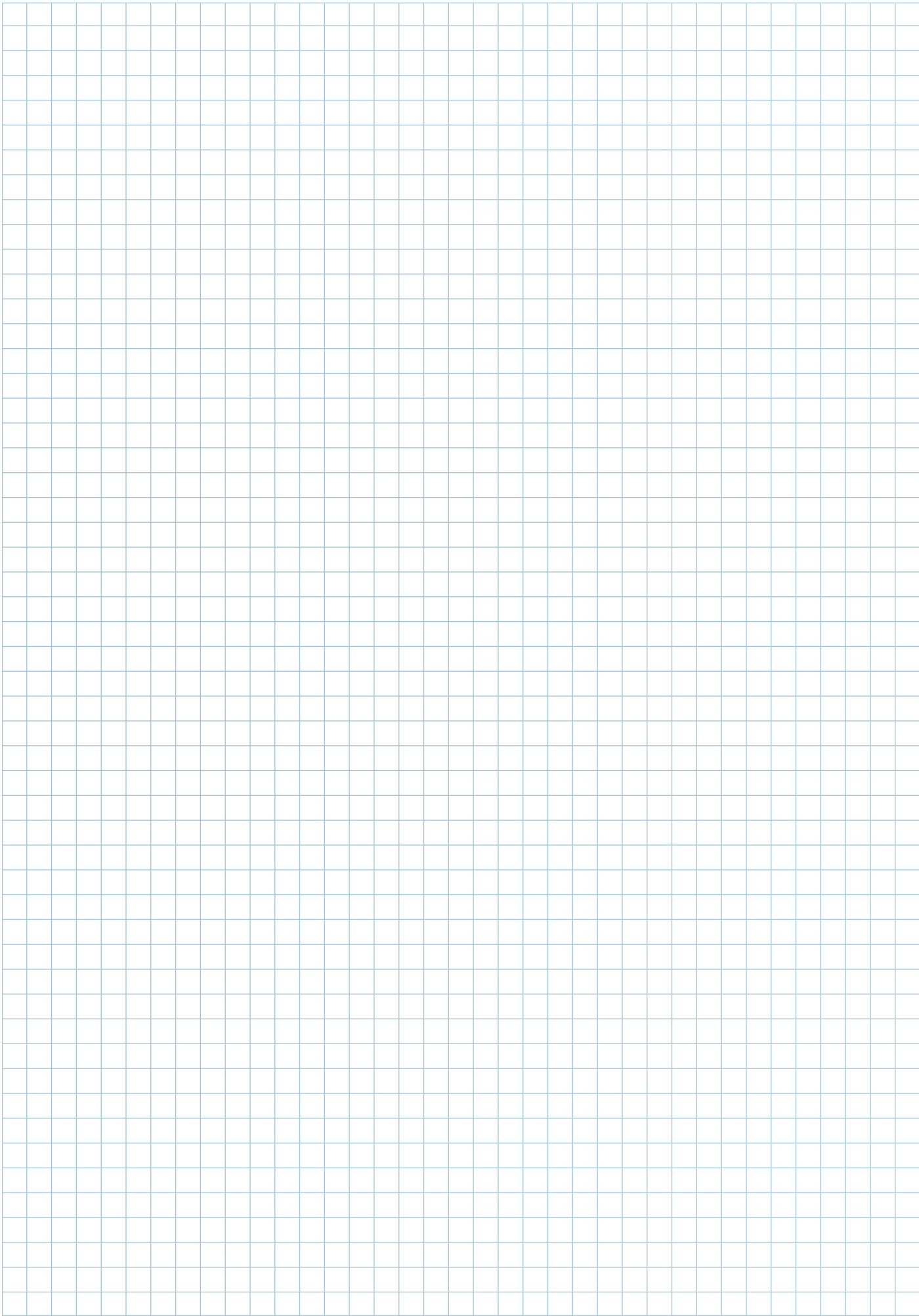


Camera housing with water cooling and air blow-off

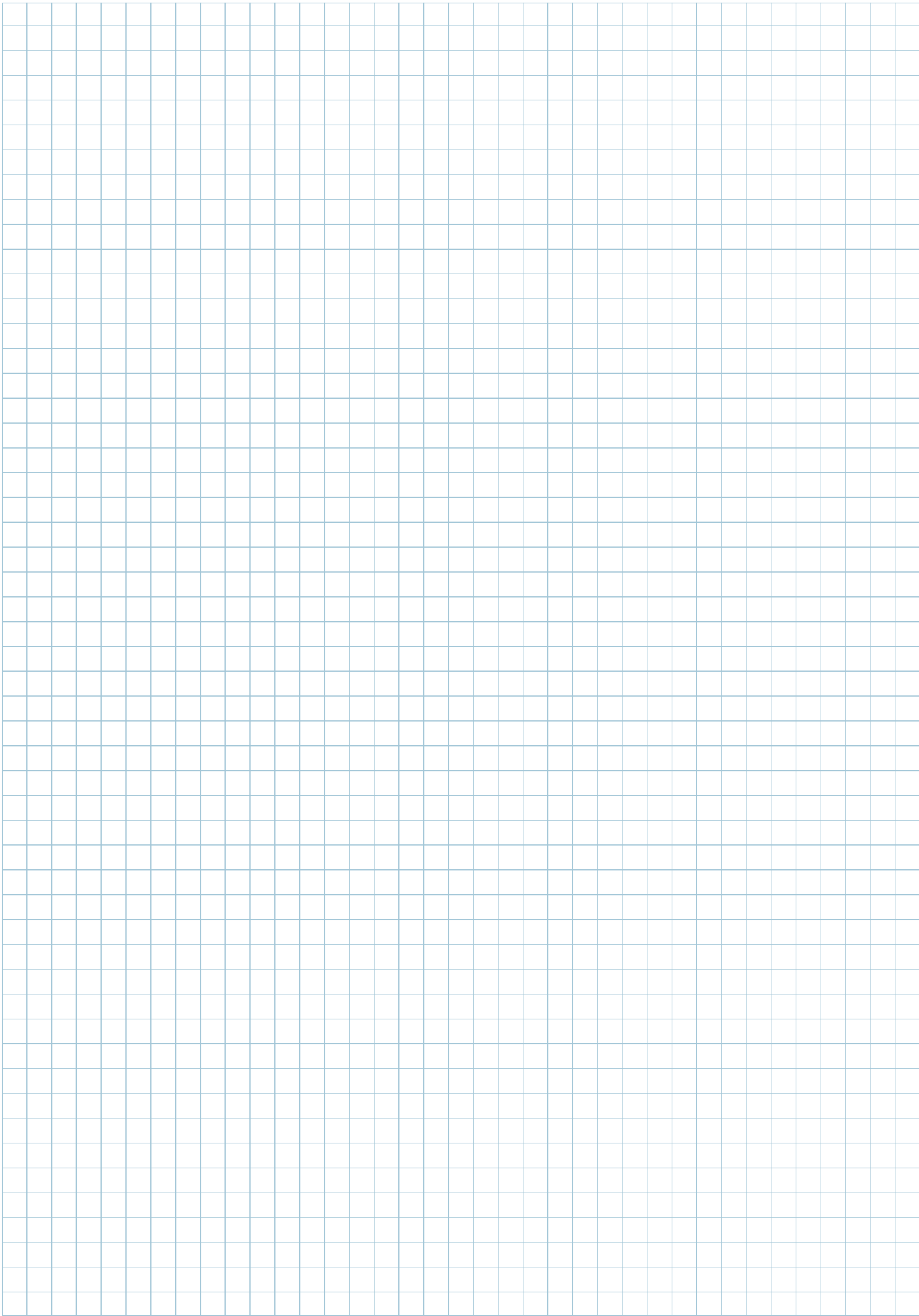
### PRODUCT FEATURES

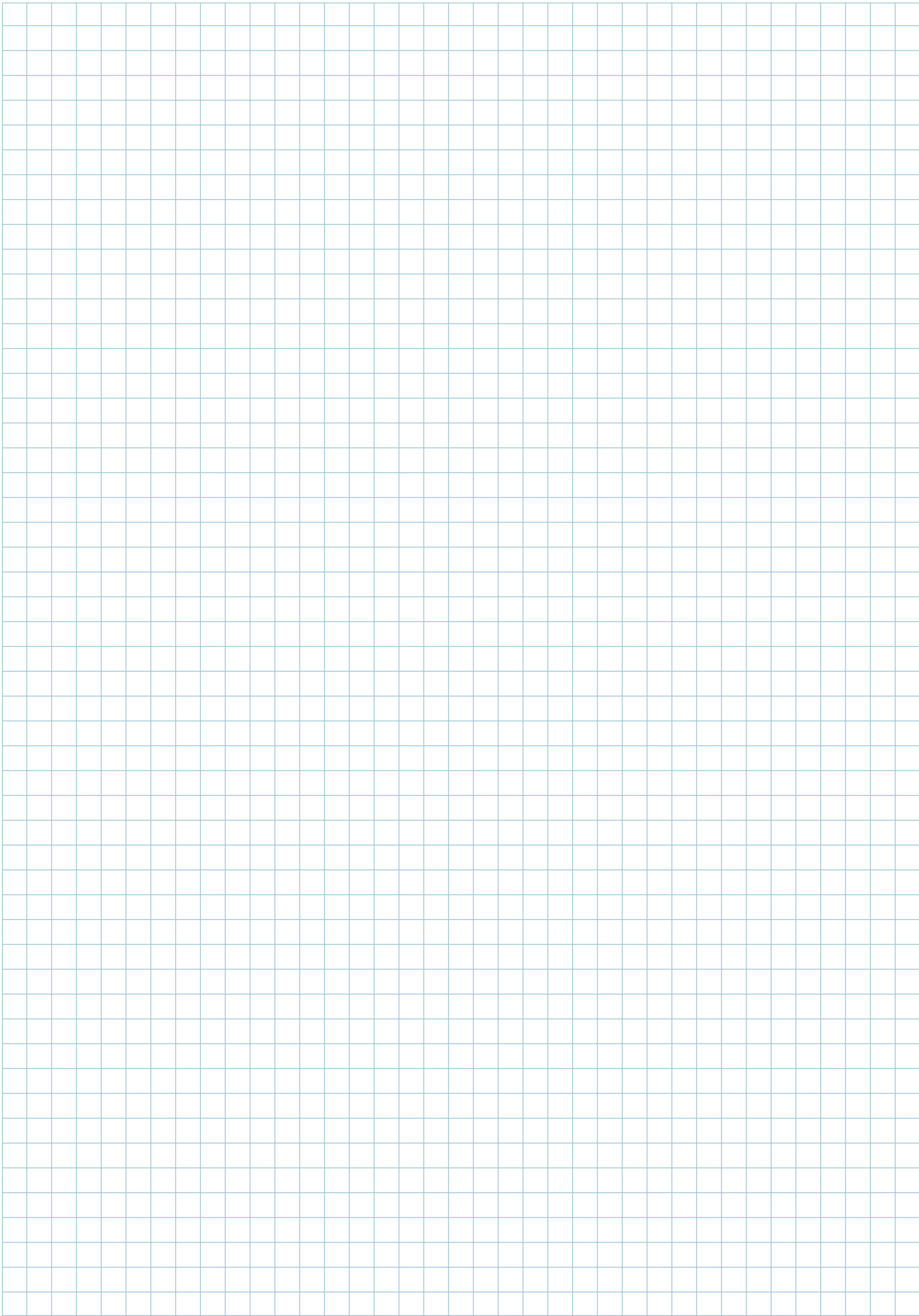
- Continuous online height and/or width measurement of stock
- Real time measured height, target height and average size display
- Increased safety by reducing operator activities around hot stock
- Operator configurable size limit alarms
- Data logging for analysis and trending











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