

# ARCHIMEDEAN WATER SCREW PUMPS



Archimedes water screw pumps are a special kind of volumetric pump designed to satisfy the user's various needs in terms of cost-effective management, reliability and versatility. For over thirty years, first SPECO® then RONCUZZI® have been constructing screw pumps for various applications.

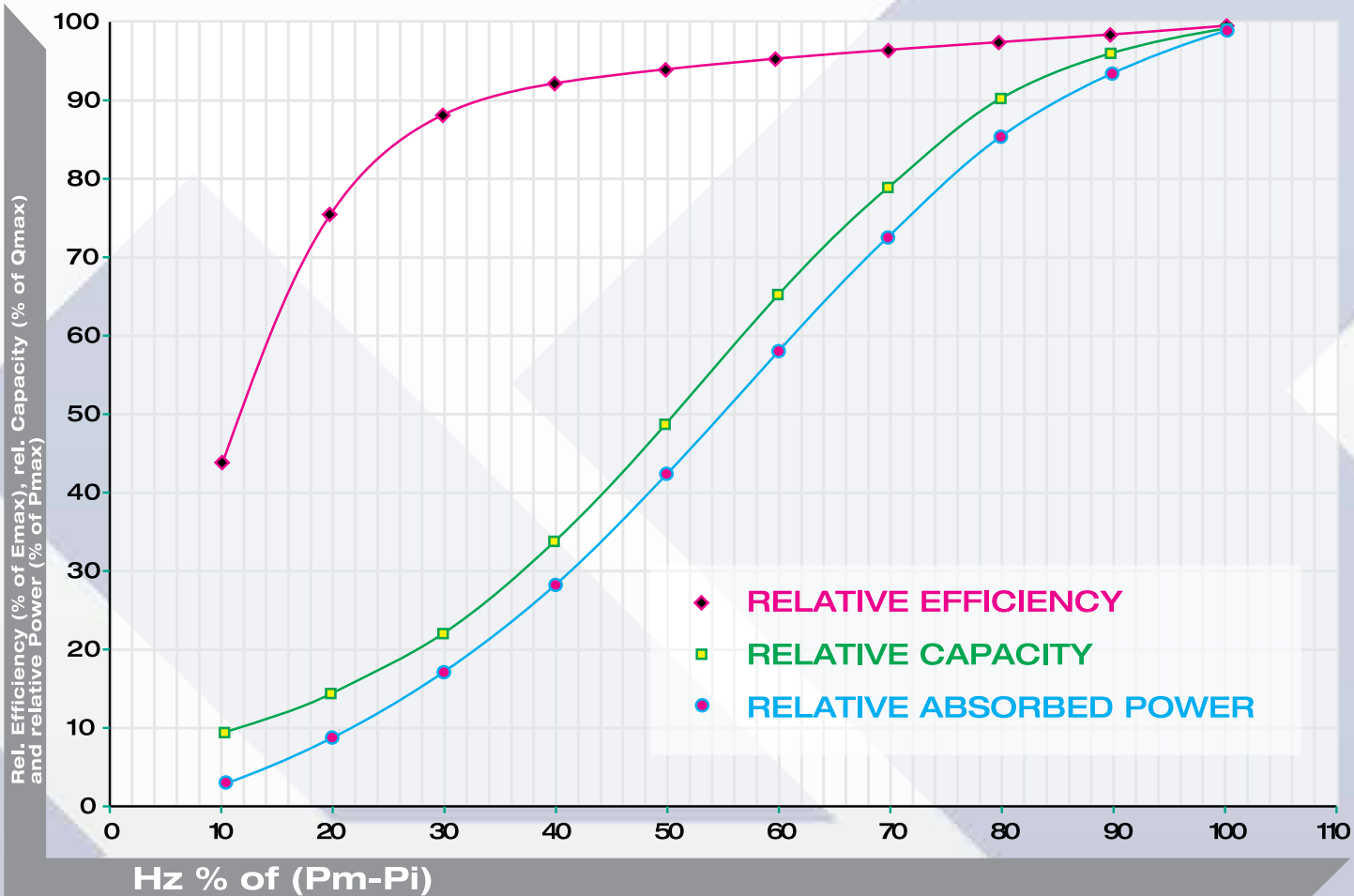


## APPLICATIONS

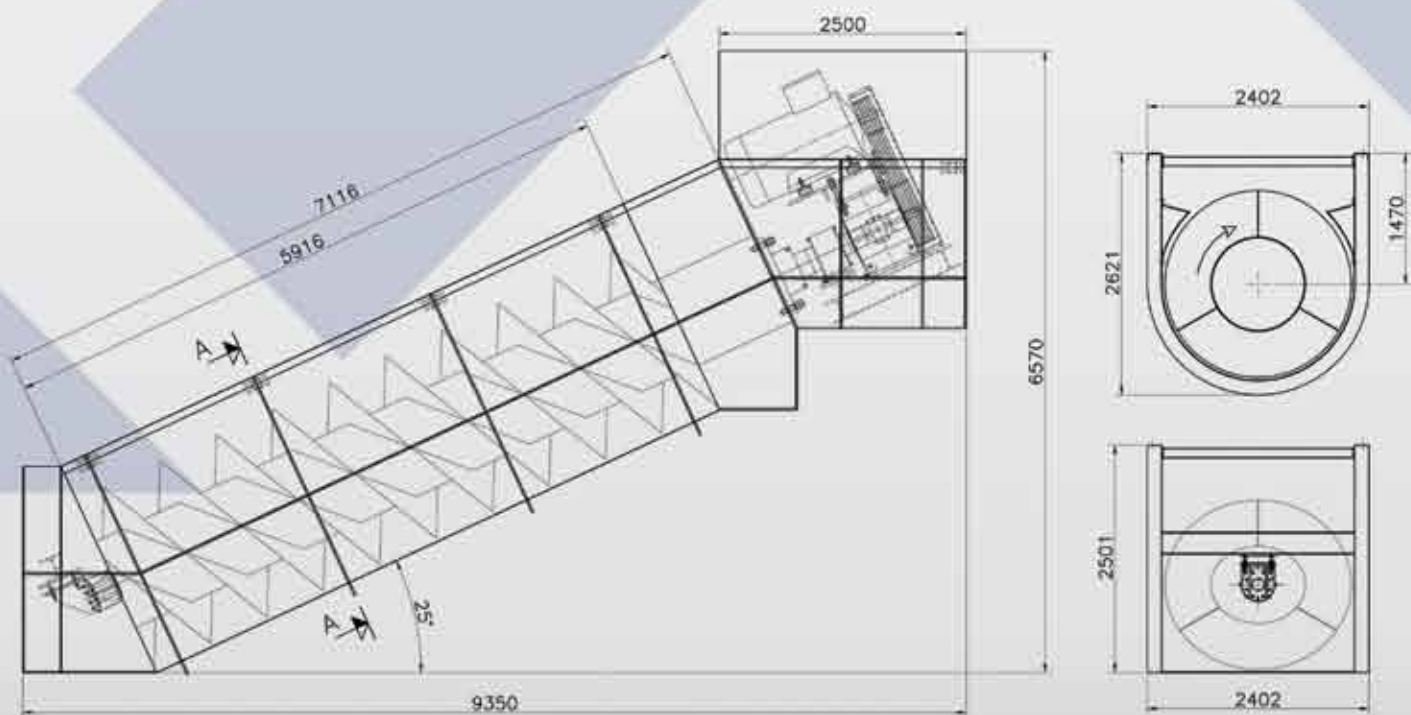
Over the last hundred years, the demand for screw pumps has increased. Originally designed as machines for maintaining the water level in reclaimed land, screw pumps are today used for the management of industrial waters, providing solutions for:

- ◆ Irrigation
- ◆ Drainage
- ◆ Rain water management
- ◆ Water treatment plants
- ◆ Process water management
- ◆ Horizontal water flow management



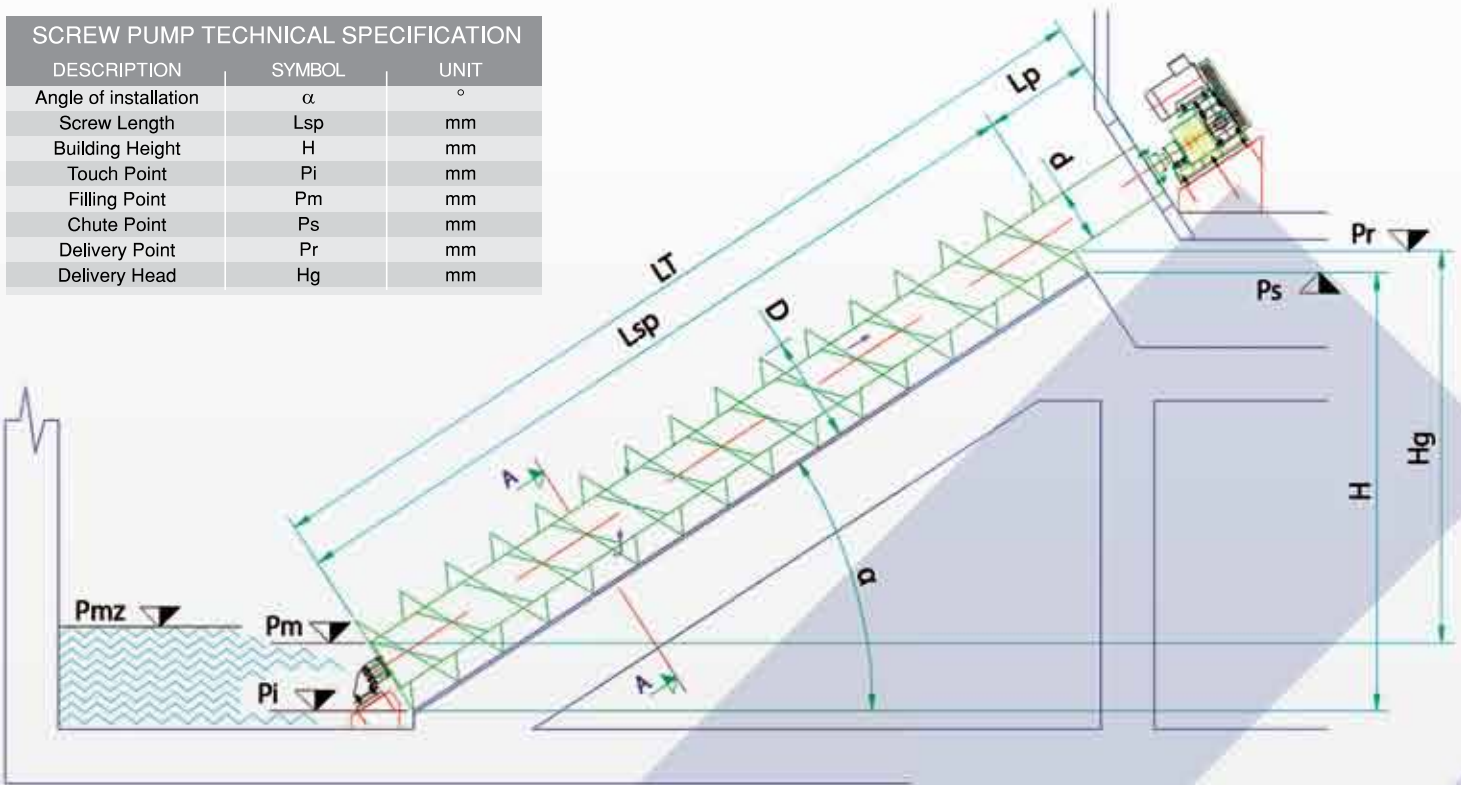


### PREFABRICATED COMPACT SCREW PUMPS



### SCREW PUMP TECHNICAL SPECIFICATION

DESCRIPTION	SYMBOL	UNIT
Angle of installation	$\alpha$	°
Screw Length	Lsp	mm
Building Height	H	mm
Touch Point	Pi	mm
Filling Point	Pm	mm
Chute Point	Ps	mm
Delivery Point	Pr	mm
Delivery Head	Hg	mm



TYPE	SCREW D mm	INSTALLATION 30°			INSTALLATION 33°			INSTALLATION 35°			INSTALLATION 38°		
		1 Flight Qmax l/s	2 Flights Qmax l/s	3 Flights Qmax l/s	1 Flight Qmax l/s	2 Flights Qmax l/s	3 Flights Qmax l/s	1 Flight Qmax l/s	2 Flights Qmax l/s	3 Flights Qmax l/s	1 Flight Qmax l/s	2 Flights Qmax l/s	3 Flights Qmax l/s
PA300	300	8	11	13	6	10	12	5	9	11	4	8	10
PA400	400	16	22	26	12	19	24	10	18	23	9	16	20
PA500	500	27	36	44	19	32	40	17	30	38	15	27	33
PA600	600	42	56	68	30	50	62	26	47	59	23	41	52
PA700	700	63	84	103	45	75	92	40	71	88	34	62	77
PA800	800	86	115	140	62	102	126	54	96	121	47	84	106
PA900	900	113	152	185	81	135	166	71	127	159	62	111	139
PA1000	1,000	144	194	236	104	172	213	91	162	203	79	142	178
PA1100	1,100	180	243	295	129	215	266	114	203	253	98	177	222
PA1200	1,200	220	297	361	159	263	325	140	248	310	120	217	272
PA1300	1,300	251	338	411	181	300	371	159	283	353	137	247	310
PA1400	1,400	316	426	518	227	377	466	200	356	445	173	311	390
PA1500	1,500	388	523	636	279	463	572	246	437	546	212	382	479
PA1600	1,600	432	582	708	311	516	637	274	486	607	236	425	533
PA1700	1,700	517	697	847	372	618	763	328	582	727	283	509	639
PA1800	1,800	568	766	931	409	679	838	360	639	799	310	559	702
PA1900	1,900	667	900	1,094	480	797	985	423	751	939	365	657	824
PA2000	2,000	726	979	1,190	523	867	1,072	460	817	1,022	397	715	897
PA2100	2,100	840	1,132	1,377	604	1,003	1,240	533	946	1,182	459	827	1,038
PA2200	2,200	962	1,297	1,576	692	1,149	1,419	610	1,083	1,353	526	946	1,188
PA2300	2,300	1,036	1,397	1,698	746	1,238	1,529	657	1,166	1,458	566	1,020	1,280
PA2400	2,400	1,111	1,497	1,820	799	1,327	1,639	704	1,250	1,562	607	1,093	1,372
PA2500	2,500	1,188	1,602	1,947	855	1,419	1,753	753	1,337	1,671	649	1,169	1,468
PA2600	2,600	1,340	1,806	2,196	964	1,601	1,977	850	1,508	1,885	732	1,319	1,655
PA2700	2,700	1,500	2,022	2,459	1,080	1,792	2,214	951	1,689	2,110	820	1,476	1,853
PA2800	2,800	1,594	2,149	2,612	1,147	1,904	2,352	1,011	1,794	2,243	871	1,569	1,969
PA2900	2,900	1,770	2,387	2,902	1,274	2,115	2,613	1,123	1,993	2,491	968	1,742	2,187
PA3000	3,000	1,870	2,521	3,065	1,346	2,234	2,760	1,186	2,105	2,631	1,022	1,841	2,310
PA3100	3,100	1,973	2,660	3,234	1,420	2,358	2,912	1,251	2,221	2,776	1,079	1,942	2,438
PA3200	3200	2,175	2,932	3,564	1,565	2,598	3,210	1,379	2,448	3,060	1,189	2,140	2,687
PA3300	3300	2,286	3,082	3,747	1,645	2,731	3,374	1,450	2,574	3,216	1,250	2,250	2,824
PA3400	3400	2,400	3,235	3,933	1,727	2,867	3,542	1,522	2,701	3,376	1,312	2,362	2,965
PA3500	3500	2,626	3,541	4,305	1,890	3,138	3,876	1,666	2,957	3,695	1,436	2,585	3,245

## BENEFITS

- ◆ Possibility of **use in contaminated waters** also containing solids
- ◆ Resistant machines because **of lack of wear by cavitation** and low speed
- ◆ **Constant efficiency over time**
- ◆ **Efficiency almost constant with change in flow rate**
- ◆ Minimum **maintenance**
- ◆ High **range of flow rates**



manufactured by  
**RONCUZZI**<sup>®</sup>

## CONSTRUCTION TYPES

- ◆ Screws with **concrete channel**
- ◆ Screws with **steel trough casing**
- ◆ **Compact prefabricated screws** complete with inlet and outlet section



## OPTIONS

- ◆ **Stainless steel screws**
- ◆ **Closed bearings** no lubricant leaks
- ◆ **Splash guards** suitable for process requirements



Rights reserved to modify technical specifications

May 2009

063001979



RONCUZZI S.r.l.  
Via del Campo Sportivo 40  
I - 48020 Mezzano (Ravenna) - ITALY



manufactured by  
**RONCUZZI**®

Water & Waste Water Handling Water & Waste Water Handling Water & Waste Water H